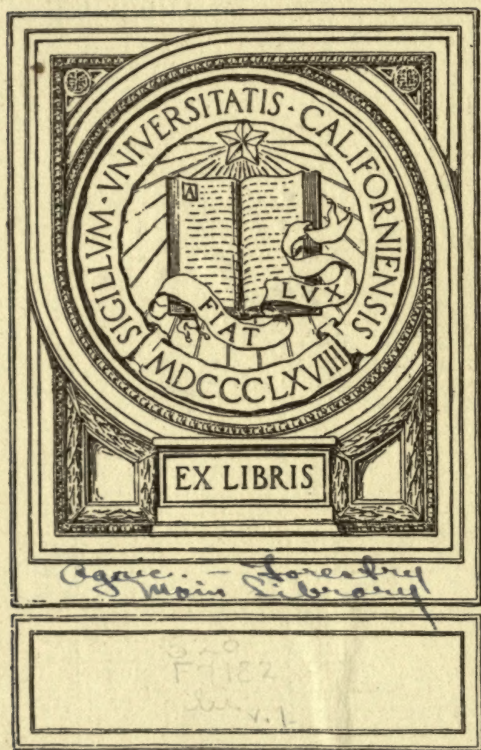




FORESTRY PAMPHLETS

Pamphlets on the Lumber Industry

Record of Wholesale Prices of Lumber.

Based on actual sales made F. O. B.

VOL. I.

for Each Quarter of the Calendar Year

1911.

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American Lumber in Foreign Markets. Vol.

XI., 1897.

7 Influence of Forestry upon the Lumber Indus-
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3 Sawmill Statistics. U. S. F. S. Cir. 107.

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The Nat'l Ass'n of Box Manufacturers,
In cooperation with United States Dept.
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Walton Mulford

AMERICAN LUMBER

IN

FOREIGN MARKETS.

VOL. XI.

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Reissued, with Supplementary Reports, from the Bureau of
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1897.

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VALUES OF FOREIGN COINS.

The following statements show the valuation of foreign coins, as given by the Director of the United States Mint and published by the Secretary of the Treasury, in compliance with the first section of the act of March 3, 1873, viz: "That the value of foreign coins, as expressed in the money of account of the United States, shall be that of the pure metal of such coin of standard value," and that "the value of the standard coins in circulation of the various nations of the world shall be estimated annually by the Director of the Mint, and be proclaimed on the 1st day of January by the Secretary of the Treasury."

In compliance with the foregoing provisions of law, annual statements were issued by the Treasury Department, beginning with that issued on January 1, 1874, and ending with that issued on January 1, 1890. Since that date, in compliance with the act of October 1, 1890, these valuation statements have been issued quarterly, beginning with the statement issued on January 1, 1891.

These estimates "are to be taken (by customs officers) in computing the value of all foreign merchandise made out in any of said currencies, imported into the United States."

The following statements, running from January 1, 1874, to April 1, 1894, have been prepared to assist in computing the proper values in American money of the trade, prices, values, wages, etc., of and in foreign countries, as given in consular and other reports. The series of years are given so that computations may be made for each year in the proper money values of such year. In hurried computations, the reductions of foreign currencies into American currency, no matter for how many years, are too often made on the bases of latest valuations. When it is taken into account that the ruble of Russia, for instance, has fluctuated from 77.17 cents in 1874 to 37.2 cents in April, 1894, such computations are wholly misleading. All computations of values, trade, wages, prices, etc., of and in the "fluctuating-currency countries" should be made in the values of their currencies in each year up to and including 1890, and in the quarterly valuations thereafter.

To meet typographical requirements, the quotations for the years 1876, 1877, 1879, 1881, and 1882 are omitted, these years being selected as showing the least fluctuations when compared with years immediately preceding and following.

To save unnecessary repetition, the estimates of valuations are divided into three classes, viz: (A) countries with fixed currencies, (B) countries with fluctuating currencies, and (C) quarterly valuations of fluctuating currencies.

A.—Countries with fixed currencies.

Countries.	Standard.	Monetary unit.	Value in terms of United States gold.	Coins.
Argentine Republic*...	Gold and silver...	Peso	\$0.96,5	Gold—Argentine (\$4.82,4) and $\frac{1}{2}$ Argentine; silver—peso and divisions.
Austria-Hungary†.....	Gold	Crown.....	.20,3	Gold—20 crowns (\$4.05,2) and 10 crowns.
Belgium.....	Gold and silver...	Franc.....	.19,3	Gold—10 and 20 franc pieces; silver—5 francs.
Brazil.....	Gold	Milreis	.54,6	Gold—5, 10, and 20 milreis; silver— $\frac{1}{2}$, 1, and 2 milreis.
Chile‡.....	Gold and silver....	Peso	.91,2	Gold—escudo (\$1.82,4), doubloon (\$4.56,1), and condor (\$9.12,8); silver—peso and divisions.
Cuba.....	do.....	do.....	.92,6	Gold—doubloon (\$5.01,7); silver—peso.
Denmark.....	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Egypt.....	do.....	Pound (100 piasters).	4.94,3	Gold—10, 20, 50, and 100 piasters; silver—1, 2, 10, and 20 piasters.
Finland.....	do.....	Mark.....	.19,3	Gold—10 and 20 marks (\$1.93 and \$3.85,9).
France.....	Gold and silver....	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany.....	Gold	Mark.....	.23,8	Gold—5, 10, and 20 marks.
Great Britain.....	do.....	Pound sterling....	4.86,6 $\frac{1}{2}$	Gold—sovereign (pound sterling) and half sovereign.
Greece.....	Gold and silver....	Drachma.....	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti.....	do.....	Gourde.....	.96,5	Silver—gourde.
Italy.....	do.....	Lira.....	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Liberia.....	Gold	Dollar.....	1.00	
Netherlands§.....	Gold and silver....	Florin.....	.40,2	Gold—10 florins; silver— $\frac{1}{2}$, 1, and 2 $\frac{1}{2}$ florins.
Portugal.....	Gold	Milreis	1.08	Gold—1, 2, 5, and 10 milreis.
Spain.....	Gold and silver....	Peseta.....	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden and Norway...	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Switzerland.....	Gold and silver....	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey.....	Gold	Piaster.....	.04,4	Gold—25, 50, 100, 200, and 500 piasters.
Venezuela.....	Gold and silver....	Bolivar.....	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

* In 1874 and 1875 the gold standard prevailed in the Argentine Republic. Its currency does not appear in the statements again until 1883, when the double standard prevailed, and the peso attained a fixed value of 96.5 cents.

† On reference to the table of "fluctuating currencies," it will be seen that Austria had the silver standard up to and including the quarter ending July 1, 1892. The next quarter (October 1) inaugurated the gold standard (*see* note under table of "fluctuating currencies").

‡ The gold standard prevailed in Chile until January 1, 1890. The value of the peso has been the same under both standards.

§ The Netherlands florin, as will be seen in the "fluctuating" table, became fixed in value (40.2 cents) in 1880.

B.—Countries with fluctuating currencies, 1874-90.

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1874.	1875.	1878.	1880.	1883.	1884.
Austria-Hungary*.	Silver.....	Florin.....	\$0.47,6	\$0.45,3	\$0.45,3	\$0.41,3	\$0.40,1	\$0.39,8
Bolivia.....	do.....	Dollar until 1880; boliviano thereafter.	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Central America.....	do.....	Peso.....	.96,5	.91,8	.91,8	.83,6	.....	.....
China.....	Silver.....	Haikwan tael...	1.61	1.61	.....	.....	.....	.....
Colombia.....	do.....	Peso.....	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Ecuador.....	do.....	do.....	.96,5	.91,8	.91,8	.83,6	.81,2	.80,6
Egypt†.....	Gold.....	Pound (100 piasters).	.....	.....	4.97,4	4.97,4	4.90	4.90
India.....	Silver.....	Rupee.....	.45,8	.43,6	.43,6	.39,7	.38,6	.38,3
Japan.....	{ Gold..... Silver..... }	{ Yen..... Yen..... }	{ .99,7 .99,7 }	{ .99,7 .99,7 }	{ .99,7 .99,7 }	{ .99,7 .99,7 }	{ .87,6 .88,2 }	{ .86,9 .87,5 }
Mexico.....	do.....	Dollar.....	1.04,7½	.99,8	.99,8	.90,9	.....	.....
Netherlands ‡.....	Gold and silver..	Florin.....	.40,5	.38,5	.38,5	.40,2	.....	.....
Peru.....	Silver.....	Sol.....	.92,5	.91,8	.91,8	.83,6	.81,2	.80,6
Russia.....	do.....	Ruble.....	.77,17	.73,4	.73,4	.66,9	.65	.64,5
Tripoli.....	do.....	Mahbub of 20 piasters.	.87,09	.82,9	.82,9	.74,8	.73,3	.72,7

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1885.	1886.	1887.	1888.	1889.	1890.
Austria-Hungary*.	Silver.....	Florin.....	\$0.39,3	\$0.37,1	\$0.35,9	\$0.34,5	\$0.33,6	\$0.42
Bolivia.....	do.....	Dollar until 1880; boliviano thereafter.	.79,5	.75,1	.72,7	.69,9	.68	.85
Central America.....	do.....	Peso.....	.....	.....	.....	.69,9	.68	.85
Colombia.....	do.....	do.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Ecuador.....	do.....	do.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Egypt†.....	Gold.....	Pound (100 piasters).	4.90	4.90	4.94,3	4.94,3	4.94,3	4.93,3
India.....	Silver.....	Rupee.....	.37,8	.35,7	.34,6	.33,2	.32,3	.40,4
Japan.....	{ Gold..... Silver..... }	{ Yen..... Yen..... }	{ .85,8 .81 }	{ 81 }	{ 78,4 }	{ 75,3 }	{ 73,4 }	{ 91,7 }
Mexico.....	do.....	Dollar.....	.86,4	.81,6	.79	.75,9	.73,9	.92,3
Peru.....	Silver.....	Sol.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Russia.....	do.....	Ruble.....	.63,6	.60,1	.58,2	.55,9	.54,4	.68
Tripoli.....	do.....	Mahbub of 20 piasters.	.71,7	.67,7	.65,6	.63	.61,4	.76,7

* The silver standard prevailed in Austria-Hungary up to 1892. The law of August 2 of that year (see CONSULAR REPORTS, No. 147, p. 623) established the gold standard.

† The Egyptian pound became fixed in value at \$4.94,3 in 1887.

‡ The Netherlands florin fluctuated up to the year 1880, when it became fixed at 40.2 cents.

C.—Quarterly valuations of fluctuating currencies, 1891-'94.

Countries.	Monetary unit.	1891.				1892.			
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.	Oct. 1.
Austria-Hungary *	{ Gold crown.....								\$0.80,3
	{ Silver florin ...	\$0.38,1	\$0.36,3	\$0.36,3	\$0.35,7	\$0.34,1	\$0.32,8	\$0.32	
Bolivia.....	Silver boliviano.....	.77,1	.73,5	.73,6	.72,3	.69,1	.66,5	.64,9	.61,6
Central America...	Silver peso.....	.77,1	.73,5	.73,6	.72,3	.69,1	.66,5	.64,9	.61,6
China†.....	{ Shanghai tael.....	1.13,9	1.08,5	1.08,7	1.06,8	1.02,1	.98,2	.95,8	.91
	{ Haikwan tael.....	1.27	1.20,9	1.21	1.18,9	1.13,7	1.09,3	1.06,7	1.01,3
Colombia.....	Silver peso.....	.77,1	.73,5	.73,6	.72,3	.69,1	.66,5	.64,9	.61,6
Ecuador.....	do.....	.77,1	.73,5	.73,6	.72,3	.69,1	.66,5	.64,9	.61,6
India.....	Silver rupee.....	.36,6	.34,9	.35	.34,3	.32,8	.31,6	.30,8	.29,3
Japan‡.....	Silver yen.....	.83,1	.79,2	.79,3	.77,9	.74,5	.71,6	.69,9	.66,4
Mexico.....	Silver dollar.....	.83,7	.80	.80	.78,5	.75	.72,2	.70,4	.66,9
Peru.....	Silver sol.....	.77,1	.73,5	.73,6	.72,3	.69,1	.66,5	.64,9	.61,6
Russia§.....	Silver ruble.....	.61,7	.58,8	.58,8	.57,8	.55,3	.53,1	.51,9	.49,2
Tripoli.....	Silver mahbub..	.69,5	.66,3	.66,4	.65,2	.62,3	.60	.58,5	.55,5
Venezuela ¶.....	Silver bolivar...	.15,4	.14,7	.14,7	.14,5	.13,8	.13,3	.13	.12,3

Countries.	Monetary unit.	1893.				1894.	
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.
Bolivia.....	Silver boliviano.....	\$0.61,3	\$0.61	\$0.60,4	\$0.53,1	\$0.51,6	\$0.46,5
Central America.....	Silver peso.....	.61,3	.61	.60,4	.53,1	.51,6	.46,5
China†.....	{ Shanghai tael.....	.90,6	.90,1	.89,2	.78,4	.76,2	.68,6
	{ Haikwan tael.....	1.01	1.00,4	.99,4	.87,4	.84,9	.76,5
Colombia.....	Silver peso.....	.61,3	.61	.60,4	.53,1	.51,6	.46,5
Ecuador.....	do.....	.61,3	.61	.60,4	.53,1	.51,6	.46,5
India.....	Silver rupee.....	.29,2	.29	.28,7	.25,2	.24,5	.22,1
Japan‡.....	Silver yen.....	.66,1	.65,8	.65,1	.57,3	.55,6	.50,1
Mexico.....	Silver dollar.....	.66,6	.66,2	.65,6	.57,7	.56	.50,5
Peru.....	Silver sol.....	.61,3	.61	.60,4	.53,1	.51,6	.46,5
Russia§.....	Silver ruble.....	.49,1	.48,8	.48,3	.42,5	.41,3	.37,2
Tripoli.....	Silver mahbub.....	.55,3	.55	.54,5	.47,9	.46,5	.41,9

* Austria-Hungary had the silver standard up to August, 1892 (see note to "fluctuating" table B).

† China (silver). The Haikwan tael is the customs tael, and the Shanghai tael that used in trade. Consul-General Denny (CONSULAR REPORTS No. 43, p. 516) says: "The value of the tael varies in the different ports of China, and every port has two taels, one being the Government, or Haikwan, tael, in which all duties have to be paid, and the other the market tael, the former exceeding the latter by some 11 per cent."

‡ Gold is the nominal standard in Japan, but silver is practically the standard. The fixed value of the gold yen is 99.7 cents.

§ The gold ruble is valued at 77.2 cents. Silver is the nominal standard, but paper is the actual currency, and its depreciation is measured by the gold standard.

¶ The Venezuelan bolivar became fixed in value (19.3 cents) on January 1, 1892.

FOREIGN WEIGHTS AND MEASURES.

The following table embraces only such weights and measures as are given from time to time in CONSULAR REPORTS and in Commercial Relations:

Foreign weights and measures, with American equivalents.

Denominations.	Where used.	American equivalent.
Almude.....	Portugal.....	4.422 gallons.
Ardeb.....	Egypt.....	7.6907 bushels.
Are.....	Metric.....	0.02471 acre.
Arobe.....	Paraguay.....	25 pounds.
Arratel or libra.....	Portugal.....	1.011 pounds.
Arroba (dry).....	Argentine Republic.....	25.3175 pounds.
Do.....	Brazil.....	32.38 pounds.
Do.....	Cuba.....	25.3664 pounds.
Do.....	Portugal.....	32.38 pounds.
Do.....	Spain.....	25.36 pounds.
Do.....	Venezuela.....	25.4024 pounds.
Arroba (liquid).....	Cuba, Spain, and Venezuela.....	4.263 gallons.
Arshinc.....	Russia.....	28 inches.
Arshine (square).....	do.....	5.44 square feet.
Artel.....	Morocco.....	1.12 pounds.
Biril.....	Argentine Republic and Mexico.....	20.0787 gallons.
Barrel.....	Malta (customs).....	11.4 gallons.
Do.....	Spain (raisins).....	100 pounds.
Berkovet.....	Russia.....	361.12 pounds.
Bongkal.....	India.....	832 grains.
Bonw.....	Sumatra.....	7,096.5 square meters.
Bu.....	Japan.....	0.1 inch.
Butt (wine).....	Spain.....	140 gallons.
Cafiso.....	Malta.....	5.4 gallons.
Candy.....	India (Bombay).....	529 pounds.
Do.....	India (Madras).....	500 pounds.
Cantar.....	Morocco.....	113 pounds.
Do.....	Syria (Damascus).....	575 pounds.
Do.....	Turkey.....	124.7036 pounds.
Cantaro (Cantar).....	Malta.....	175 pounds.
Carga.....	Mexico and Salvador.....	300 pounds.
Catty.....	China.....	1.333½ (1½) pounds
Do.....	Japan.....	1.31 pounds.
Do.....	Java, Siam, Malacca.....	1.35 pounds.
Do.....	Sumatra.....	2.12 pounds.
Centaro.....	Central America.....	4.2631 gallons.
Centner.....	Bremen and Brunswick.....	117.5 pounds.
Do.....	Darmstadt.....	110.24 pounds.
Do.....	Denmark and Norway.....	110.11 pounds.
Do.....	Nuremberg.....	112.43 pounds.
Do.....	Prussia.....	113.44 pounds.
Do.....	Sweden.....	93.7 pounds.
Do.....	Vienna.....	123.5 pounds.
Do.....	Zollverein.....	110.24 pounds.
Do.....	Double or metric.....	220.46 pounds.
Chih.....	China.....	14 inches.
Coyan.....	Sarawak.....	3,098 pounds.
Do.....	Siam (Koyan).....	2,667 pounds.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalent.
Cuadra.....	Argentine Republic.....	4.2 acres.
Do.....	Paraguay.....	78.9 yards.
Do.....	Paraguay (square).....	8.077 square feet.
Do.....	Uruguay.....	Nearly 2 acres.
Cubic meter.....	Metric.....	35.3 cubic feet.
Cwt. (hundredweight).....	British.....	112 pounds.
Desiatine.....	Russia.....	2.697 acres.
Do.....	Spain.....	1.599 bushels.
Drachme.....	Greece.....	Half ounce.
Dun.....	Japan.....	1 inch.
Egyptian weights and measures.....	(See CONSULAR REPORTS No. 144.)	
Fanega (dry).....	Central America.....	1.5745 bushels.
Do.....	Chile.....	2.575 bushels.
Do.....	Cuba.....	1.599 bushels.
Do.....	Mexico.....	1.54728 bushels.
Do.....	Morocco.....	Strike fanega, 70 lbs. full fanega, 118 lbs.
Do.....	Uruguay (double).....	7.776 bushels.
Do.....	Uruguay (single).....	3.888 bushels.
Do.....	Venezuela.....	1.599 bushels.
Fanega (liquid).....	Spain.....	16 gallons.
Feddán.....	Egypt.....	1.03 acres.
Frail (raisins).....	Spain.....	50 pounds.
Frasco.....	Argentine Republic.....	2.5096 quarts.
Do.....	Mexico.....	2.5 quarts.
Fuder.....	Luxemburg.....	264.17 gallons.
Garnice.....	Russian Poland.....	0.88 gallon.
Gram.....	Metric.....	15.432 grains.
Hectare.....	do.....	2.471 acres.
Hectoliter:		
Dry.....	do.....	2.838 bushels.
Liquid.....	do.....	26.417 gallons.
Joch.....	Austria-Hungary.....	1.422 acres.
Ken.....	Japan.....	4 yards.
Kilogram (kilo).....	Metric.....	2.2046 pounds.
Kilometer.....	do.....	0.621376 mile.
Klafter.....	Russia.....	216 cubic feet.
Kota.....	Japan.....	5.13 bushels.
Korree.....	Russia.....	3.5 bushels.
Last.....	Belgium and Holland.....	85.134 bushels.
Do.....	England (dry malt).....	82.52 bushels.
Do.....	Germany.....	2 metric tons (4,480 pounds).
Do.....	Prussia.....	112.29 bushels.
Do.....	Russian Poland.....	113½ bushels.
Do.....	Spain (salt).....	4,760 pounds.
League (land).....	Paraguay.....	4,633 acres.
Li.....	China.....	2,115 feet.
Libra (pound).....	Castilian.....	7,100 grains (troy)
Do.....	Argentine Republic.....	1.0127 pounds.
Do.....	Central America.....	1.043 pounds.
Do.....	Chile.....	1.014 pounds.
Do.....	Cuba.....	1.0161 pounds.
Do.....	Mexico.....	1.01465 pounds.
Do.....	Peru.....	1.0143 pounds.
Do.....	Portugal.....	1.011 pounds.
Do.....	Uruguay.....	1.0143 pounds.
Do.....	Venezuela.....	1.0161 pounds.
Liter.....	Metric.....	1.0267 quarts.
Livre (pound).....	Greece.....	1.1 pounds.
Do.....	Guiana.....	1.0791 pounds.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalent.
Load.....	England (timber).....	Square, 50 cubic feet, unhewn, 40 cubic feet; inch planks, 600 super- ficial feet.
Manzana	Costa Rica.....	1½ acres.
Marc.....	Bolivia.....	0.507 pound.
Maund.....	India.....	82½ pounds.
Meter.....	Metric	39.37 inches.
Mil.....	Denmark.....	4.68 miles.
Do.....	Denmark (geographical).....	4.61 miles.
Morgen.....	Prussia.....	0.63 acre.
Oke.....	Egypt.....	2.7225 pounds.
Do.....	Greece.....	2.84 pounds.
Do.....	Hungary.....	3.0817 pounds.
Do.....	Turkey.....	2.85418 pounds.
Do.....	Hungary and Wallachia.....	2.5 pints.
Pic.....	Egypt.....	21¼ inches.
Picul.....	Borneo and Celebes.....	135.64 pounds.
Do.....	China, Japan, and Sumatra.....	133½ pounds.
Do.....	Java.....	135.1 pounds.
Do.....	Philippine Islands (hemp).....	139.45 pounds.
Do.....	Philippine Islands (sugar).....	140 pounds.
Pic.....	Argentine Republic.....	0.9478 foot.
Do.....	Castilian	0.91407 foot.
Pik.....	Turkey.....	27.9 inches.
Pood.....	Russia.....	36.112 pounds.
Pund (pound).....	Denmark and Sweden.....	1.102 pounds.
Quarter.....	Great Britain.....	8.252 bushels.
Do.....	London (coal).....	36 bushels.
Quintal.....	Argentine Republic.....	101.42 pounds.
Do.....	Brazil.....	130.06 pounds.
Do.....	Castile, Chile, Mexico, and Peru.....	101.61 pounds.
Do.....	Greece.....	123.2 pounds.
Do.....	Newfoundland (fish).....	112 pounds.
Do.....	Paraguay.....	100 pounds.
Do.....	Syria.....	125 pounds.
Do.....	Metric	220.46 pounds.
Rottle.....	Palestine.....	6 pounds.
Do.....	Syria.....	5¾ pounds.
Sagen.....	Russia.....	7 feet.
Salm.....	Malta.....	490 pounds.
Se.....	Japan.....	3.6 feet.
Seer.....	India.....	1 pound 13 ounces.
Shaku.....	Japan.....	10 inches.
Sho.....	do.....	1.6 quarts.
Standard (St. Petersburg).....	Lumber measure.....	165 cubic feet.
Stone.....	British	14 pounds.
Suerte.....	Uruguay.....	2,700 cuadras (<i>see</i> cua- dra).
Tael.....	Cochin China.....	590.75 grains (troy).
Tan.....	Japan.....	0.25 acre.
To.....	do.....	2 pecks.
Ton.....	Space measure.....	40 cubic feet.
Tonde (cereals).....	Denmark.....	3.94783 bushels.
Tondeland.....	do.....	1.36 acres.
Tsubo.....	Japan.....	6 feet square.
Tsun.....	China.....	1.41 inches.
Tunna.....	Sweden.....	4.5 bushels.
Tunnland.....	do.....	1.22 acres.
Vara.....	Argentine Republic.....	34.1208 inches.
Do.....	Castile.....	0.914117 yard.
Do.....	Central America.....	38.874 inches.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalent.
Vara.....	Chile and Peru.....	33.367 inches.
Do.....	Cuba.....	33.384 inches.
Do.....	Curaçao.....	33.375 inches.
Do.....	Mexico.....	33 inches.
Do.....	Paraguay.....	34 inches.
Do.....	Venezuela.....	33.384 inches.
Vedro.....	Russia.....	2.707 gallons.
Vergees.....	Isle of Jersey.....	71.1 square rods.
Verst.....	Russia.....	0.663 mile.
Vlocka.....	Russian Poland.....	41.98 acres.

METRIC WEIGHTS AND MEASURES.

Metric weights.

Milligram ($\frac{1}{1000}$ gram) equals 0.0154 grain.
 Centigram ($\frac{1}{100}$ gram) equals 0.1543 grain.
 Decigram ($\frac{1}{10}$ gram) equals 1.5432 grains.
 Gram equals 15.432 grains.
 Decagram (10 grams) equals 0.3527 ounce.
 Hectogram (100 grams) equals 3.5274 ounces.
 Kilogram (1,000 grams) equals 2.2046 pounds.
 Myriagram (10,000 grams) equals 22.046 pounds.
 Quintal (100,000 grams) equals 220.46 pounds.
 Millier or tonnea—ton (1,000,000 grams) equals 2,204.6 pounds.

Metric dry measure.

Millimeter ($\frac{1}{1000}$ liter) equals 0.061 cubic inch.
 Centiliter ($\frac{1}{100}$ liter) equals 0.6102 cubic inch.
 Deciliter ($\frac{1}{10}$ liter) equals 6.1022 cubic inches.
 Liter equals 0.908 quart.
 Decaliter (10 liters) equals 9.08 quarts.
 Hectoliter (100 liters) equals 2.838 bushels.
 Kiloliter (1,000 liters) equals 1.308 cubic yards.

Metric liquid measure.

Millimeter ($\frac{1}{1000}$ liter) equals 0.27 fluid ounce.
 Centiliter ($\frac{1}{100}$ liter) equals 0.338 fluid ounce.
 Deciliter ($\frac{1}{10}$ liter) equals 0.845 gill.
 Liter equals 1.0567 quarts.
 Decaliter (10 liters) equals 2.6417 gallons.
 Hectoliter (100 liters) equals 26.417 gallons.
 Kiloliter (100 liters) equals 264.17 gallons.

Metric measures of length.

Millimeter ($\frac{1}{1000}$ meter) equals 0.0394 inch.
 Centimeter ($\frac{1}{100}$ meter) equals 0.3937 inch.
 Decimeter ($\frac{1}{10}$ meter) equals 3.937 inches.
 Meter equals 39.37 inches.

Decameter (10 meters) equals 393.7 inches.

Hectometer (100 meters) equals 328 feet 1 inch.

Kilometer (1,000 meters) equals 0.62137 mile (3,280 feet 10 inches).

Myriameter (10,000 meters) equals 6.2137 miles.

Metric surface measures.

Centare (1 square meter) equals 1,550 square inches.

Are (100 square meters) equals 119.6 square yards.

Hectare (10,000 square meters) equals 2.471 acres.

CIRCULAR.

DEPARTMENT OF STATE,

Washington, December 15, 1893.

To the Consular Officers of the United States:

GENTLEMEN: You are hereby requested to prepare reports for publication showing in what manner the lumber exports from this country may be increased.

The following interrogatories cover the principal points upon which information is desired:

(1) What are the native woods? (If any of these are of an uncommon variety describe them.)

(2) What are the kinds of lumber used and which are preferred?

(3) What is the amount of lumber imported from other countries? (Name the countries.)

(4) If any import duty is laid upon foreign lumber, what is the amount?

(5) What are the prices of lumber?

(6) Give a general description of the climate of your district?

Information is also desired concerning the extent of general building, shipbuilding, and railroad building in your district.

All suggestions concerning the methods to be pursued to extend the foreign trade (already considerable) of this country in lumber will be of value.

I am, gentlemen, your obedient servant,

EDWARD H. STROBEL,

Third Assistant Secretary.

The foregoing circular was sent to the following consulates, given in the order of the publication of their replies:

Africa: Madeira (Funchal), Sierra Leone, South Africa (Cape Town), and Zanzibar.

America:

Dominion of Canada: New Brunswick and Nova Scotia (Halifax).

Mexico: La Paz, Mazatlan, Nogales, and Vera Cruz.

Central America: British Honduras (Belize), Guatemala, and Salvador (San Salvador).

South America: Argentine Republic (Buenos Ayres), Brazil (Rio de Janeiro), Chile (Valparaiso), Colombia (Barranquilla and Colon), Dutch Guiana (Paramaribo), Ecuador (Guayaquil), West Indies (St. Thomas).

Asia:

British Asia: Ceylon and India (Calcutta).

China: Amoy, Canton, Hongkong (British), and Tien-Tsin.

Japan; Nagasaki, and Osaka and Hiogo.

Java (Batavia).

Siam (Bangkok).

Turkey in Asia: Palestine (Jerusalem) and Syria (Beirut).

Australasia: New Zealand (Auckland), New South Wales (Sydney), South Australia (Adelaide), Tasmania (Hobart), and Victoria (Melbourne).

Europe:

Austria-Hungary: Austria-Hungary (Triest) and Bohemia (Prague).

France: Bordeaux and Marseilles.

Germany: Bavaria (Nuremberg), Bremen, Frankfort-on-the-Main, and Hamburg.

Norway: Christiania.

Portugal: The Azores (Fayal).

Russia: Riga.

Turkey in Europe: Constantinople.

United Kingdom: Birmingham, Dundee, Falmouth, Glasgow, Hull, Leeds, Liverpool, and Newcastle-on-Tyne.

Polynesia: Hawaiian Islands (Honolulu), New Caledonia (Noumea), Samoa (Apia).

The following consulates, to which the circular was also sent, have failed to report up to the date of going to press:

Antwerp, Archangel, Bathurst, Bergen, Bogota, Bombay, Callao, Gorée-Dakar, Guaymas, Kanagawa, London, Managua, Monrovia, Montevideo, Saigon, San Juan del Norte, Santo Domingo, St. Martin, and Singapore.

DYEWOODS.

On December 20, 1893, the consuls of the United States in Brazil, British Guiana, British Honduras, Colombia, Costa Rica, Cuba, Haiti, Honduras, Jamaica, and Mexico were instructed to report upon the dyewood industries of their respective districts. Reports, in answer to the instruction mentioned, were received and published in Consular Reports Nos. 162 and 166, for March and July, 1894.

AMERICAN LUMBER IN FOREIGN MARKETS

AFRICA.

MADEIRA.

NATIVE WOODS.

Of native trees the til is the largest and handsomest. It has shining, deep green leaves. The wood is brown, marked with dark veins, and is susceptible of high polish. It is in much demand for furniture, boxes, walking sticks, and souvenirs generally. Newly cut, til has a disagreeable odor and can be used only when well seasoned.

The vinhatico is a fine tree. The wood is red and much used for furniture. It is often called Madeira mahogany.

The aderno grows to the height of 60 feet and is used for cask staves. The wood is white.

Azevinho and perado are closely allied trees, and are common species of holly. The wood is white and is used for inlaid work. They attain a height of 15 to 20 feet.

None of the foregoing trees are found elsewhere, except in the Canaries. The pao branco is a handsome tree, attaining a height of 50 feet. It has a hard white wood, and is in much demand for keels of boats. It grows readily from the seed. It is not found elsewhere except in the Canaries and Azores.

The folhado is a fine tree, attaining a height of 60 feet. In summer it is full of white, sweet-scented flowers. Its wood is tough and of light weight. It is of great interest to botanists, belonging to a genus of which all the species, except this, are American.

These are about all the native woods that are used for manufacturing.

KINDS OF LUMBER USED.

The kinds of lumber used and preferred here are spruce, and white and pitch pine.

IMPORTS AND DUTIES.

All the lumber used here comes from the United States and Nova Scotia.

The import duty upon foreign lumber is as follows:

Kinds and sizes.	Duties.	Local tax (additional).
Balks, beams, and boards, 75 millimeters thick, by not less than 35 centimeters wide	<i>Cubic meter.</i> \$1. 40	<i>Cubic meter.</i> \$0. 20
Sawn into boards 35 millimeters thick and 75 millimeters wide	2. 80	.32½
Sawn into boards 15 millimeters thick up to 35 millimeters wide	4. 00	.32½
Boards less than 15 millimeters thick	6. 00	.32½
Spars for ships	3 per cent ad valorem.	.....

Balks, beams, and boards are those imported in greatest quantities.

PRICES AND CLIMATE.

The prices of lumber here are from 2 cents to 6 cents per superficial foot, 12 by 1 inches. I give a general description of the climate, as taken from "Climate and Resources of Madeira," by Michael C. Graham, M. D., F. R. G. S.

Madeira has a mean annual temperature of 67.3°; the average heat of summer is hardly more than 70°, whilst the mean temperature of the winter season is always above 60°. The extreme heat of summer is seldom more than 77° in the hottest part of the day, whilst in winter the lowest possible temperature is hardly under 50° in the coldest part of the night. The range of temperature during the day and night is likewise marked by the same moderation. Varying from 5 to 15° and averaging 9°, the mornings and evenings are almost always cool and refreshing, and the decline of temperature is constantly gradual and continuous, without any sudden depression at sunset.

In the winter season we have our greatest atmospheric dryness, and the solar rays are not then excluded by any dense shield of watery vapor. As the spring advances the moisture of Madeira is increased, and the solar rays are greatly intercepted; but, eventually, in the summer the northeast wind arises, in latitudes far north, and reaches this region in moderate dryness.

I should remark that in Madeira the dampest atmospheres occur during the warmest weather. We know nothing of the cold damp of northern climates, nor has any fog or surface mist a place in this climate.

The annual rainfall is 29 inches; I believe that estimate to represent fairly the average amount, and moreover, it closely coincides with the deductions of others. There are, however, considerable variations; in some years the whole amount has not reached 20 inches, while in other years it has exceeded 40 inches, but an amount between 25 inches and 30 inches may be looked for with tolerable certainty.

It is by no means clear that the annual fall of rain has been affected by the destruction of the forests.

Here I may state that in Funchal there has been no change in one hundred and thirty years, and that the recorded rainfall is now exactly what it was when the fall of rain was first measured. The rain usually commences in October in heavy showers. The autumn rains are variable in amount and duration. After a few days, a period of fine weather is to be expected; but November and December are generally interspersed with rain days. The winter rains are quite tropical in character, the water falling in dense intermitting showers, and generally unaccompanied by wind.

In December, 1867, one of my rain gauges, holding $2\frac{1}{2}$ inches, filled and overflowed in a single night. The month of January is often without rain, and then is, perhaps, the driest and pleasantest month of the year. Sometimes, however, it counts many days of rain. February, likewise, is uncertain, and has been in my experience the wettest, windiest, and most unsettled month. March usually brings much fine weather, but rain sometimes falls on several days. April and May are spring months with occasional showers. June is almost invariably cloudy. July, August, and September are cloudless months of unbroken sunshine. The wet weather of Madeira is seldom lasting, and in the entire winter there are few consecutive rainy days.

Annually there are eighty days in which rain falls. The fall of snow upon the mountains generally happens in January or February; it seldom lies long upon the hills. Snow is seldom seen upon the mountains lower than 3,000 feet above Funchal; and it has probably never been known to lie nearer in altitude than 2,500 feet.

GENERAL BUILDING.

There is nothing doing here in the way of general building. In the line of ship building nothing but small boats are constructed.

We have one short railway, of about 3 miles, from the city to the top of the mountain.

THOMAS C. JONES,
Consul.

FUNCHAL, *February 21, 1894.*

SIERRA LEONE.

NATIVE WOODS.

Native woods used in building here are oak, whismore, brimstone, teak, mahogany (two varieties), rosewood (fine quality), and black walnut. These are durable woods that will withstand insects and weather.

KINDS OF LUMBER USED.

The native woods are used in the framing and outside works, and American pine for finishing. The nicest finish is obtained by using rosewood.

IMPORTS OF LUMBER.

During the year 1893, 855,971 feet of pine lumber were received at this port from the United States. No other country sends lumber to Sierra Leone.

DUTY AND PRICES.

The import duty on lumber is $7\frac{1}{2}$ per cent ad valorem, invoice price.

The present prices of lumber in this market are: Sawed lumber, lineal measure, 1 inch thick, board measure, \$40 per 1,000 feet; clear pitch pine, planed on one side, \$60; if tongued and grooved, \$80.

CLIMATE.

The climate is variable. The rainy season begins about the middle of June and lasts until about the middle of November. The rainfall is not steady. It averaged about twelve days in a month in 1892. In September, 1893, it was seventeen days. In 1893 the rains were a little over the average. The temperature ranges, the year round, between 75° and 95°, rarely getting above 95°, and always falling at night to 80° or a little below. The climate is damp and unhealthy near the seaboard.

GENERAL BUILDING.

For general building the material commonly used is stone, of which there is an abundance here. It is soft and porous when first dug out of the ground, but hardens by exposure. It is of a light brown color, and lighter than brick. The architecture here is of the old Spanish style, the main entrance being, in some instances, in the back of the house.

EXTENSION OF LUMBER TRADE.

As regards the methods of increasing the lumber trade here, competition is needed. There are only two firms here dealing in lumber, which is but a branch of their other mercantile business. A lumber dealer here with sash and door and planing mill would find a good trade. There is nothing of the kind here; no machinery in the colony but "sewing machines," and those are English. There is no shipbuilding nor railroads in the colony. There are no Americans here to introduce American articles. The American goods here are handled by French and English merchants, who know but little of the United States and its people.

BOLDING BOWSER,
Consul.

SIERRA LEONE, *January 20, 1894.*

SOUTH AFRICA.

NATIVE WOODS.

The principal native woods of South Africa are as follows: Yellowwood (2 kinds), black and white ironwood, stinkwood, olyreuhout (olive), assagai, white pear, kerschout (candlewood), white alder, etc. None of these woods grow in sufficient quantities to cut any figure in lumber problems, except the following: Yellowwood, which somewhat resembles poplar, though it is harder and has a cross grain, and stinkwood, which is more like our American walnut, and has many colors and shades when polished.

KINDS OF LUMBER USED.

As regards the kind of lumber used and preferred here, I would say that poplar, basswood, pine shelving, and walnut take the lead.

IMPORTS OF LUMBER.

I have not been able to learn the amount of lumber imported, but nearly all that comes is from the United States and Australia. In connection herewith I attach a clipping from the Cape Times of the 8th instant:

Those who are interested in the promotion of the Colonial timber trade will be somewhat alarmed to hear of the arrival from Australia of a cargo of timber, much of it consisting of wagonwood and other forms of manufactured timber which can be produced in the Colony. The cargo was brought by the ship *Esempio*, which arrived here from Hamelin on Tuesday, and consisted of 1,638 pieces of timber, 5 bundles of pickets, 2 bundles of laths, 2 bundles of shingles, 1 bundle of spokes, and 16 bundles of felloes, for this port, and 3,612 pieces of timber for Port Elizabeth.

DUTY AND PRICES.

The import duty is 4 cents per cubic foot.

The prices of lumber are as follows:

Yellow-wood planks (native)	per cube..	\$0. 60
Stinkwood planks (native)	do....	. 84
Walnut, 1½-inch board	per M..	126. 00
Ash, 1-inch board	do....	61. 00
Poplar, plain, 1-inch board	do....	40. 00
figured, 1-inch board	do....	80. 00

CLIMATE.

The climate of this district is hot and dry during November, December, January, and February; occasional rains in March; a good deal of rain in April, May, June, and July, while August, September, and October (spring months), are delightful in every way. No snow or frost ever comes, and flowers are in bloom all through the year. The northern part of the district (in the South African Republic and Orange Free State) enjoys a little cooler weather during the winter months, but is flooded with water at this season.

GENERAL BUILDING.

There is a good deal of general building all through the district, and some railroad building west from Beira to Salisbury, though the number of miles to be finished this year is only 45. I know of no ship-building.

EXTENSION OF LUMBER TRADE.

Considerable wood has lately been ordered from the Puget Sound district for use at Kimberly and other inland points. The removal of our tariff on wool, which is largely produced here, will doubtless stimulate this section to purchase American products in return, and American interests in mining and trade generally are already large in this locality.

ACKNOWLEDGMENT.

D. Isaacs & Co., of Cape Town, have kindly supplied me with prices, etc. They employ about 200 men in the manufacture of furniture, and import directly from the United States.

C. H. BENEDICT,
Consul.

CAPE TOWN, *March 12, 1894.*

ZANZIBAR.

NATIVE WOODS.

The native woods used in building are mangrove and cocoanut. Besides these, there are the mango and a small fir.

IMPORTS, DUTY, AND PRICES.

Very little lumber is imported, and that little comes from England and India.

There is no import duty on lumber. The price varies greatly, and depends on the supply and exchange.

CLIMATE.

The climate is tropical, Zanzibar being 6° south of the equator. There is a long and a short rainy season, and a hot and cool season. During the latter, the thermometer averages about 80°.

GENERAL BUILDING.

There is no ship or railroad building, except that at Tanga, 75 miles north of here. A railroad is now being commenced; all materials for its construction come from Germany.

All houses, except native swahili huts, are built of coral rock and lime. For ceilings and roofs, mangrove poles are laid across and coral rock and native cement filled in. Doors between rooms are unusual. Outside doors are mostly made of teak, brought from Bombay. Native huts are made of a framework of mangrove poles tied together the spaces between poles being filled in with mud; the roofs are of cocoanut leaves.

There is not a single wooden house in Zanzibar or vicinity. It would be impossible to live in them on account of the heat.

EXTENSION OF LUMBER TRADE.

The quantity of lumber used is so limited that it would not be profitable to export from the United States to this place.

J. W. ALLEN,
Acting Consul.

ZANZIBAR, *March 22, 1894.*

AMERICA.

DOMINION OF CANADA.

NEW BRUNSWICK AND NOVA SCOTIA.

I inclose circular from the house of Hon. J. B. Snowball, Chatham, New Brunswick, relating to the lumber trade in the maritime provinces for 1893. Mr. Snowball is a senator representing New Brunswick in the upper Dominion house, and issues a similar circular yearly, which is generally copied into the newspapers as authoritative on the matter to which it relates.

DARIUS H. INGRAHAM,
Consul-General.

HALIFAX, *January 11, 1894.*

[J. B. Snowball's Miramichi Wood Trade Circular for the year 1893.]

CHATHAM, NEW BRUNSWICK, CANADA, *December 30, 1893.*

The winter of 1892-'93 proved the most favorable for log-getting of any we have had for many years, consequently we had a much larger output for the force employed than was anticipated. Spring freshets were poor, and driving expensive. About 10,000,000 superficial feet of logs were left in the brooks.

Notwithstanding the favorable season, the export from this port fell off 12,000,000 superficial feet from last year. And while the exports from St. John were 10,000,000 more than in 1892, still the exports for the province show a decrease of 13,000,000. The increased export from Nova Scotia is caused by the excessive quantity of birch deals shipped from that province.

The present winter is the most severe experienced here for twenty years. Snow is now deeper all over eastern Canada than any time last winter. Operations in this district were entered into on a limited scale, and with an anticipated production of 25 per cent less than last year, but the severe weather is likely to reduce the production below this estimate, and next year's export from this port must be small.

The proposed United States tariff, if adopted for wood goods, will have an indirect beneficial effect on the trade of this section of New Brunswick. Freight rates from eastern New Brunswick to United States ports are so high in comparison with those from St. John and Bay of Fundy ports that our trade in that direction is about nil, excepting in laths and shingles, but under the proposed tariff the export of a considerable portion of the southern and western portions of this province is likely to be attracted to American ports, leaving more of the transatlantic trade to be supplied from this section.

France, Spain, and Mediterranean ports have taken a larger portion of our exports this year than formerly, and if the "favored nation" treaty is ratified, as it will probably be at once, between France and Canada, a larger portion of our export is likely to go to that country, to the great relief of the English market, and with a fair prospect of better prices for spruce.

The stock of merchantable deals wintering here is 7,600 in St. Petersburg standards,* against 7,000 standards last year and 11,000 standards in 1891. Logs are 4,000 standards against 3,000 last year.

Shipments from Miramichi for twelve years, from 1882 to 1893, inclusive.

[Superficial feet.]

1882.....	117, 000, 000	1888.....	73, 000, 000
1883.....	149, 000, 000	1889.....	110, 000, 000
1884.....	108, 000, 000	1890.....	88, 000, 000
1885.....	87, 000, 000	1891.....	72, 000, 000
1886.....	72, 000, 000	1892.....	95, 000, 000
1887.....	68, 000, 000	1893.....	83, 000, 000

Exports of Miramichi lumber, 1893.

Whither exported.	Number vessels.	Tons.	Deals, scant- ling, ends, and boards.	Palings.	Spool wood.
			<i>Super. feet.</i>	<i>Pieces.</i>	<i>Pieces.</i>
Great Britain:					
Ayr.....	1	604	556, 059		
Aberdovey.....	1	332	346, 679		
Bowling.....	2	1, 787	768, 585		793, 083
Barrow.....	5	5, 619	5, 716, 990		
Birkenhead.....	1	586	553, 000		
Cardiff.....	3	2, 252	1, 982, 000		
Fleetwood.....	2	1, 738	947, 695	898, 025	
Garston.....	3	1, 841	711, 301	1, 486, 400	
Greenock.....	1	739			503, 439
Glasson Dock.....	1	374	381, 386	4, 800	
Liverpool.....	15	18, 190	19, 650, 298	13, 600	
London.....	2	1, 144	952, 076		
Newport.....	2	1, 839	1, 603, 073		
Preston Dock.....	1	439	445, 000	4, 800	
Penarth Roads.....	1	1, 143	954, 000		
Plymouth.....	2	1, 340	1, 150, 203		
Swansea.....	2	1, 298	1, 138, 678		
Silloth Dock.....	2	1, 105	1, 076, 296		
Whitehaven.....	1	421	400, 314		
Total.....	49	42, 791	39, 333, 633	2, 407, 625	1, 296, 522
Ireland:					
Arklow.....	1	248	272, 634		
Belfast.....	19	17, 350	16, 747, 673	159, 353	
Coleraine.....	1	251	265, 358		
Conway.....	1	490	432, 242		
Dublin.....	8	6, 037	5, 495, 108		
Dundrum.....	2	508	533, 331		
Dundalk.....	1	320	355, 904		
Londonderry.....	3	2, 279	2, 120, 127		
Larne.....	4	2, 135	2, 099, 353		
Newry.....	1	936	904, 346		
Trillick.....	1	528	444, 723		
Waterford.....	2	1, 274	1, 180, 078		
Total.....	44	32, 356	30, 850, 877	159, 353	
France:					
Cette.....	1	932	819, 490		
Marseilles.....	4	2, 377	2, 192, 231		
Cette.....	1	1, 159	1, 382, 672		
Marseilles.....	1	508	569, 846		
Port Vendres.....	1				
Total.....	7	5, 066	4, 964, 239		

* Standard equals 165 cubic feet.

Reports of Miramichi lumber, 1893—Continued.

Whither exported.	Number vessels.	Tons.	Deals, scant- ling, ends, and boards.	Palings.	Spool wood.
Spain:			<i>Super. feet.</i>	<i>Pieces.</i>	<i>Pieces.</i>
Barcelona.....	3	2, 150	1, 953, 229	.....	.....
Bilbao.....	1	426	418, 343	.....	.....
Cartagena.....	2	1, 358	1, 264, 063	.....	.....
Las Palmas.....	1	289	285, 695	.....	.....
Cartagena.....	2	1, 642	1, 348, 802	.....	.....
Mazarron.....				.....	.....
Valencia.....	1	832	746, 336	.....	.....
Vianna de Castille.....	1	192	168, 023	.....	.....
Total.....	11	6, 889	6, 184, 491	.....	.....
Africa:					
Mostagnem.....	1	641	608, 082	.....	.....
Oran.....				.....	.....
Oran.....	1	780	722, 172	.....	.....
Total.....	2	1, 421	1, 330, 254	.....	.....

Distribution by ports of St. John shipments, December 1, 1892, to December 1, 1893.

Whither exported.	Number of ves- sels.	Tons.	Deals, scant- ling ends, and boards.	Timber.
			<i>Super. feet.</i>	<i>Tons.</i>
Bristol.....	3	3, 728	3, 472, 852	.....
Barrow.....	1	1, 843	2, 422, 400	.....
Continent.....	6	3, 734	3, 573, 604	.....
Fleetwood.....	11	14, 477	14, 462, 277	.....
Garston.....	6	6, 953	7, 004, 811	.....
Ireland.....	54	40, 490	38, 968, 156	70
Liverpool.....	33	47, 055	42, 788, 326	5, 224
London.....	12	16, 269	2, 845, 616	.....
Penarth, f. o.....	13	14, 879	13, 082, 537	.....
Scotland.....	7	6, 621	5, 746, 545	.....
Sharpness.....	6	9, 066	8, 426, 545	.....
Wales.....	14	15, 984	13, 859, 665	.....
Total.....	166	181, 099	156, 652, 334	5, 294

Shipments from St. John to transatlantic ports for the past sixteen years.

Years.	Total deals, etc.	Timber.			Total deals, etc.	Timber.	
		Birch.	Pine.			Birch.	Pine.
	<i>Super. feet.</i>	<i>Tons.</i>	<i>Tons.</i>		<i>Super. feet.</i>	<i>Tons.</i>	<i>Tons. *</i>
1878.....	188, 168, 610	7, 989	2, 493	1886.....	138, 934, 392	7, 354	4, 313
1879.....	153, 279, 357	11, 548	3, 237	1887.....	118, 450, 590	5, 197	1, 587
1880.....	215, 485, 000	16, 035	2, 441	1888.....	153, 184, 187	4, 721	457
1881.....	210, 281, 730	5, 134	1, 734	1889.....	180, 167, 488	7, 221	487
1882.....	201, 413, 717	7, 576	3, 332	1890.....	132, 608, 516	1, 311	4, 317
1883.....	181, 517, 932	11, 778	3, 883	1891.....	122, 242, 682	5, 004	.....
1884.....	164, 829, 825	14, 006	3, 836	1892.....	146, 529, 309	10, 200	.....
1885.....	152, 543, 026	13, 769	3, 686	1893.....	156, 653, 334	5, 294	.....

Total transatlantic shipments of New Brunswick, 1892, compared with 1893.

Ports.	1892.				1893.			
	Number of vessels.	Tons.	Deals, etc.	Timber.	Number of vessels.	Tons.	Deals, etc.	Timber
Miramichi	134	103,565	<i>Super. feet.</i> 94,907,523	<i>Tons.</i> 228	113	88,523	<i>Super. feet.</i> 85,230,472	<i>Tons.</i>
St. John	164	165,207	146,529,309	10,250	166	181,099	156,653,334	5,294
Bathurst	17	10,746	9,866,015	24	18	11,810	10,176,000	102
Dalhousie (including Campbellton)	48	25,615	22,568,604	805	32	21,054	17,610,241	341
Richibucto (including Buctouche)	29	13,877	13,002,512	.....	22	11,188	10,557,663	.....
Shediac	23	11,278	10,156,333	.....	25	13,099	11,763,215	.....
Sackville (including Baie Verte)	24	13,775	14,576,566	.....	21	14,395	13,382,475	.....
Outports of Moncton, Hillsboro, Harvey, Cocagne	16	13,712	13,542,949	.....	8	7,040	6,870,085	.....
Total	455	357,775	325,149,811	11,307	405	348,208	312,243,485	5,737

The transatlantic shipments from the Province of New Brunswick for the past ten years were:

[Superficial feet.]

1884	333,000,000	1889	369,000,000
1885	292,000,000	1890	293,000,000
1886	276,000,000	1891	253,000,000
1887	250,000,000	1892	325,000,000
1888	277,000,000	1893	312,000,000

Shipments from Nova Scotia, 1893.

Ports.	Number of vessels.	Tons.	Deals, etc.	Birch timber.
Outports of Amherst:			<i>Super. feet.</i>	<i>Tons.</i>
Pugwash	10	6,467	} 17,300,000	.....
Northport	6	6,860		.....
Tidnish	9	9,281		.....
Halifax	64	39,456	34,352,656	990
Jordan River	1	524	415,108	.....
Parrsboro	39	44,426	40,792,496	.....
Pictou	20	12,990	6,888,000	4,616
St. Mary's River and Liscomb	7	4,823	4,315,680	.....
St. Margaret's Bay	5	2,935	2,593,698	.....
Sheet Harbor	2	1,403	1,316,092	.....
Ship Harbor	3	1,460	1,279,200	.....
Total	166	130,625	109,252,930	5,606

Shipment of deals from Nova Scotia to transatlantic ports.

[Superficial feet.]

1883	77,918,000	1889	92,605,488
1884	69,159,000	1890	99,512,924
1885	79,647,765	1891	78,603,742
1886	87,280,125	1892	87,861,398
1887	82,959,589	1893	109,252,930
1888	85,070,005		

MEXICO.

LA PAZ.

NATIVE WOODS.

Lower California, being divested of natural forests of pine and other timber, such as could be made useful for mining, shipbuilding, the manufacture of household articles, and for house material, is entirely dependent upon the Pacific ports and markets of the United States for supplies.

The native woods, existing in some of the valleys of the peninsula, are of no importance and can not be made available for any building purposes. The soil and climate are not adapted to timber-growing. This, together with the scarcity of rains and the lack of running streams, precludes it from ever becoming a timber country.

Boxwood, vainoro, sorrillo, yellowwood, Brazil or dyewoods of several kinds, ironwood, palo blanco, torote, and several others, found chiefly in the valleys, form the nucleus of the principal woods of the country. Some have fine grain, capable of high polish, but the trees are too small in size for the timber to be of any utility. Nevertheless the high range of mountains, running through the middle of the country, is more wooded than the lowlands. Palm trees of majestic heights, oak, pine, and fir, as well as the *Hueribo*, a gigantic tree and a species of cedar, can be seen in the gulches and crests of the mountains, which offer so many difficulties as to be out of reach for all practical purposes.

IMPORTS OF LUMBER.

The imports of lumber are exclusively from Oregon, Washington, and California. Redwood, pine, and white cedar are the kinds imported and preferred. About 2,000,000 feet of lumber are required to meet the yearly consumption.

PRICES.

The following are the wholesale and retail prices per foot of lumber:

	Cents.
Ordinary lumber of different dimensions.....	4½ to 5½
Planed of different dimensions	5 and 6
Pine flooring of different dimensions.....	6 and 7
White cedar of different dimensions.....	10 and 12

DUTY.

The import duty on pine lumber is as follows: Pine flooring, \$1 for 100 square meters; white planed cedar, 2cents per kilogram; all others, common redwood and pine lumber, are on the free list.

CLIMATE.

The climate of this district is salubrious, the thermometer ranging from 60 to 90 Fahrenheit.

GENERAL BUILDING.

House and ship building are not carried on very extensively here. Mining and other industries consume the principal portion of the lumber imported.

EXTENSION OF LUMBER TRADE.

The lumber trade could be extended considerably if parties interested would establish a branch house in this city. The business people here do not take enough interest in the lumber trade, and during half of the year the market is without proper assortments.

JAS. VIOSCA,
Consul.

LA PAZ, *January 19, 1894.*

MAZATLAN.

NATIVE WOODS.

There are hundreds of varieties of almost indestructible hard construction woods in the forests of this section, which, as yet, are not well known in the United States. The following is a list of a few of the most common:

Alamo,
Alizo,
Amapa (black and white),
Arrayán,
Asta,
Binol Blanco,
Brazil,
Cabo de hacha,
Cocoba,
Cedro (white and red cedar),
Ebano (white and black ebony),
Guayacán,
Guasima,
Higuéro,
Huinaextle,

Haba,
Huamuchil,
Lignum vitæ
Mangle,
Mesquite,
Mora,
Nogal,
Pine,
Palo fiéro,
Palo colorado,
Palo dulce,
Roble,
Tecomate,
Tepemesquite,
Venadille, etc., etc.

KINDS OF LUMBER USED.

The only lumber used here is that imported from the United States. The reason American lumber is used exclusively is that all native woods close to the coast are very hard, while the sawing is done by hand, with very poor tools. The pine ranges, which abound in lumber, are inaccessible on account of the want of easy communication.

IMPORTS, PRICES, AND DUTY.

Red and white pine are the only kinds of lumber imported, and these sell well. The price of lumber at present is from \$70 to \$75 per 1,000 feet, the duty being only \$1 per 1,000 feet. The high price is due to exchange.

More lumber would be consumed, and its price would be less if ship-building and railroad-building were going on, but the only consumption is for small carpenter work.

CLIMATE.

Nature has done for this district all that could be desired in regard to climate. It is truly delightful, being one of the most equable that can be found on the continent, its atmosphere being unsurpassed for purity.

The dry season, which lasts from November to June, is the coolest part of the year, the barometer maintaining an average of 78° F.; the rainy season is somewhat warmer than the dry season, but is so tempered by the clouds and rain that a wonderful uniformity is maintained throughout the year, the thermometer rarely reaching 92° F., and then only for a short time.

ARTHUR DE CIMA,
Vice-Consul.

MAZATLAN, *January 31, 1894.*

NOGALES.

NATIVE WOODS.

The native woods are common pine, black and white oak, mesquite, ironwood, and cedar. The pine is only suitable for lumber.

Pine and redwood lumber are mostly used.

LUMBER IMPORTS AND PRICES.

Lumber is imported from the United States only.

Common pine sells for \$35 per 1,000; flooring, \$42; redwood dressed, \$45 to \$55, and shingles, \$5 per 1,000. The above prices are in American money.

CLIMATE.

The climate of this district is such that outdoor work can be performed during the entire year, and it is considered very healthful.

IMPORTS OF LUMBER.

Nearly all the lumber use in this district comes from California and Washington, via Guaymas.

GENERAL BUILDING.

Quite a number of buildings are now being constructed in Nogales, but there is no construction of railroads at present in this district.

EXTENSION OF TRADE.

With the excessive American duty removed on lead ores, and the return to an ad valorem duty on cattle, I believe that Sonora would become a much greater purchaser of American products in the future. There are merchants in Hermosillo and Guaymas who purchase from \$100,000 to \$500,000 worth of merchandise annually, yet very few of our commercial salesmen go beyond Nogales, thus leaving all this immense business to be secured by our European competitors.

REUBEN D. GEORGE,
Vice-Consul.

NOGALES, *December 30, 1893.*

VERA CRUZ.

NATIVE WOODS.

The native woods are: Mahogany, ebony, cedar, almond, hazel, balsam, passion flower, guachichil (a hard wood), also, laurel, weeping willow, manchinille, birds-eye, violet wood, rosewood, lignum vitæ, primrose, sopota both white and black (a wood of fine grain), indigo. Annatto, Brazil wood, logwood, green ebony, mastic, mangrove, fustic, tawney wood, mountain hyssop, archil, madder. All these woods grow in this consular district, but only a few of them are much used.

KINDS OF LUMBER USED.

The kinds used are: For building purposes cedar, mahogany, and yellow pine. The pine comes from the United States and is preferred to native lumber. My observation leads me to suppose that cedar and mahogany are used, where heavy timber is required, and pine wherever inch lumber is used. More pine is used than cedar and more cedar than mahogany. Some of the other woods are used in the manufacture of chests and fine furniture, but these are too expensive for ordinary use.

IMPORTS OF LUMBER.

There is no lumber imported from any foreign country but the United States, and all lumber from there consumed here, comes from Pascagoula, except that used in the manufacturing of soap boxes, which comes in shoeks from the port of New York, being put together here.

There is quite an extensive trade in this kind of material.

PRICES.

The prices of lumber in Vera Cruz are: Pine, rough, wholesale, \$36, retail \$45 per 1,000; dressed, tongued and grooved, wholesale, \$37, retail, \$50 per 1,000. It is generally \$5 to \$10 per 1,000, higher at other ports in this district. These prices are in Mexican money. The Mexican dollar at present is worth only 55 cents American.

CLIMATE.

The climate adjacent to Vera Cruz is moist and hot, and, for about seven months of the year, unhealthy. There is a difference of opinion as to the climate north and south of this port, but I would say moist and warm, but more healthy. Forty to 50 miles inland from the coast the climate is mild and all that could be desired; about 80 miles inland Mount Orizaba is seen covered with snow at all times of the year. Thus it will be observed that in this consular district we have, within a less distance than 100 miles, land level with the sea and the highest peak in North America, with climate corresponding to the different altitudes.

GENERAL BUILDING.

House building, on a small scale, consumes considerable of the pine lumber brought from the United States. The ship-building carried on here consists of the making of sailboats and rowboats only, the largest not exceeding 60 tons burden. The construction of the Tehuantepec Railway is now under way, there being something like 125 miles completed on the Atlantic side, with, perhaps, an equal number of miles on the Pacific side.

EXTENSION OF LUMBER TRADE.

I can make no suggestions that would help to extend the lumber trade between the United States and this country; for I notice that all the lumber imported comes from the United States, and unless the natives can be induced to build better houses and more of them, or Americans come, take land, and settle here, the trade in American or any other kind of lumber will not improve.

CHARLES SCHAEFER,
Consul.

VERA CRUZ, *January 30, 1894.*

CENTRAL AMERICA.

BRITISH HONDURAS.

NATIVE WOODS.

It is difficult to suggest in what manner the lumber exports from the United States to this colony may be increased, as nearly all the lumber used for building purposes at present is American. The native woods used in building houses and boats form but a very small item in the total, because, until very recently, only one sawmill was in operation here, and that was mainly used by the firm who own it for their own private purposes. Two new sawmills have been erected in the past two years, and they bid fair to compete with the United States for a share of the lumber business, as there are undoubtedly many fine varieties of woods suitable for all purposes to be found in the forests of this colony.

Of cabinet woods, besides the well-known mahogany and cedar, there is an abundant supply, as will be seen from the inclosed list of woods, which is by no means an exhaustive one.

KINDS OF LUMBER USED.

The kinds of wood principally imported are white and pitch pine and cypress, all of which are used in house and boat building.

IMPORT DUTIES AND PRICES.

No lumber is imported from any other country than the United States.

A duty of \$1 per 1,000 feet on rough and \$1.50 on dressed lumber is collected by the Government.

Lumber in the rough sells here for \$50 per 1,000 feet and dressed lumber at \$55 to \$60.

CLIMATE.

The climate of this country is generally very healthy and although yellow fever, cholera, and smallpox have, on one or two occasions, visited its shores, these diseases have never originated here, but were always brought in, and were readily stamped out. The types of these diseases, when they have existed here, seem to have been much milder than in other countries, especially the first-named disease. Vaccination is compulsory and hence but few of the inhabitants of towns died from smallpox during its last visit in 1891, when it was brought here from Peten, in Guatemala, the deaths being confined almost entirely to the

Indians, whom it has hitherto been found difficult to reach for the purpose of vaccination. This, however, has been to a very large extent remedied and a more thorough system has been established. Cholera has not been known in this colony since 1866 and on that occasion it was brought here in a ship from South America. The following extract from an article written by Alexander Hunter, esq., late colonial surgeon, will convey a fair idea of the climate of this country:

The characteristic features of the climate of British Honduras during the greater portion of the year are a most equable temperature, with strong easterly breezes in the summer months or dry season; an absence of rain for three or four months from the end of January; and in the winter months cold northerly winds, which are generally dry and bracing; and land winds, fortunately not continuous, which usually bring a great deal of moisture from the neighboring collections of water, and much rain. Exposed to the full influence of the trade winds, the whole coast may be considered as unexceptionally healthy during their continuance, while the temperature does not vary more than 6° or 8° during the twenty-four hours. The atmosphere is dry, indeed it would be difficult to point out any place in the West Indies in which the humidity is so inconsiderable. During the rainy season, the commencement of which is variable, there are sometimes short periods of calm, in which, although the temperature is not appreciably heightened, the feeling of heat is great; but, fortunately, these calms are of rare occurrence and of short duration. The rainfall is variable; but from observations extending over a period of twenty-five years, the general average for a year is found to be between 40 and 50 inches.

The country around Belize is swampy and covered with dense mangrove bushes; but as these swamps communicate freely with the sea, and as they are constantly being filled and emptied by the flow and ebb of the tide, the malarious emanations, which under other circumstances would be sure to follow, are prevented by the mechanical, and perhaps chemical, changes which these collections of water undergo. This circumstance, combined with the frequency and strength of the sea breezes, forms the principal reason for that remarkable immunity from miasmatic diseases which the population enjoys, and which is all the more extraordinary when it is considered that all the essentials for the evolution of these noxious emanations exist, viz, heat, moisture, and decaying animal and vegetable matter.

GENERAL BUILDING.

House building has increased to a very great extent during the past ten years, especially among the poorer classes who, by means of the fruit trade which was established between this colony and New Orleans some thirteen years ago, have been enabled to erect their own dwellings.

Boat and schooner building has also increased to a great extent from the same cause, though the growing state of the logwood and other industries has contributed thereto.

Railroad building has not been engaged in, and it is difficult to say whether British Honduras will ever be blessed by the civilizing influences of the iron horse.

JAMES LEITCH,
Consul.

BELIZE, *March 5, 1894.*

THE WOODS OF BRITISH HONDURAS.

[Printed inclosure in Consul Leitch's report.]

The rise and progress of the colony of British Honduras has been indissolubly connected with the fortunes of its trade in timber and dyewoods.

Sub umbra floreo, in allusion to the mahogany tree, is the motto gratefully chosen by the colonist; but it is to the humbler denizen of the forest, the logwood shrub, that the colony owes its first recognition and early celebrity as a British plantation or settlement.

The chief industry of the colony is woodcutting, which has now been carried on for over two hundred years, and as a result much of the finest timber within easy reach of the principal rivers and their creeks has been cut down; but there are still vast tracts of virgin forests in the interior, abounding in some of the finest timber trees to be found in any part of the world. The difficulty is that they are beyond the reach of rivers, and, until the iron horse is introduced to solve the problem of bringing out our woods and stimulating the production and export of the old staples of the colony, must continue so. However, the fact remains that the quantity of wood exported maintains a fair average of the transactions for the last hundred years.¹ Indeed during the last ten years the average shipments have been more than doubled. The improved price of mahogany in 1883 stimulated its production, but the export, as in the case of logwood, depends upon market prices.

Mahogany (Swietenia mahogani).—The best qualities of mahogany come from the limestone soils to the north of Belize, those from the south being deficient in density and fine grain. In the present century a tree was cut, by a Mr. Charles Craig, of Honduras, the trunk of which yielded a log of 15 tons weight. It measured 5,168 superficial feet, squaring 57 inches by 64. The log was trucked out by Mr. Craig, and the limbs of it would probably when "manufactured"—that is, prepared for shipment—more than pay all expenses.²

Reliable returns are not procurable further back than 1802, when 2,250,000 feet are mentioned as the quantity exported; 1803, 4,500,000 feet; 1805, 6,481,000 feet. In 1824 it had kept the same figure; in 1840 it was reduced to 4,500,000 feet, but there had been overexportation in the few years preceding, and stocks had accumulated in the home markets; in 1837, for example, there were shipped from Belize 8,500,000 feet. The same mistake was made in 1845-'46. In the first of these years the returns show 9,919,507 feet, and in 1846 the enormous increase of 13,719,075 feet. A portion of these annual quantities was wood cut outside of the limits. The depression in the years 1848, 1849, 1850 is not difficult to account for. In 1874 the the quantity had come down to the old figure of about 6,000,000 feet, and in 1878 lower still, 3,146,582 feet. The cost of cutting down and getting ready for shipment is about from \$40 to \$50 per thousand feet.¹

Cedar (Cedula odorata).—Growing with the mahogany, it is a member of the same family. The export of this wood from the colony has greatly increased within the last few years. In 1876 the number of feet shipped was 18,923; in 1883, 469,144; in 1884, 348,341; in 1885, 277,111; in 1886, 132,498. In the colony the trunks of the largest trees are hollowed out to make dorays and pitpans, for which purpose they are admirably adapted on account of the light and durable character of the wood.

Logwood (Decandria monogynia).—This wood really comes next to mahogany in export value. It is found in rather moist lands, and grows luxuriantly in the swamps to the north and west, where it forms immense thickets.

The stem is crooked, and grows 16 to 24 feet high, seldom thicker than a man's thigh, the branches also crooked and irregular, thorny; leaves winged, and flowers pale yellow. The trunks are perpendicularly ribbed, and when cut down the outer white or sapwood is removed, leaving only the reddish or dark heartwood, which is

¹ Gibbs's British Honduras.² Honduras Observer, 1843.

cut into convenient logs suitable for shipment. It is claimed for Honduras logwood that it is superior to that grown in Jamaica and St. Domingo, and that its market value is fully 40 per cent higher. The yield of this wood is almost inexhaustible, as it seeds freely, and can be recut in ten to fifteen years. Its original value was £100 per ton, then £40; in 1825, £16; and it is now quoted at £5 to £7. Its export from the colony in 1713 to 1716 was 5,740 tons; in 1824, over 4,000; in 1874, 9,210 tons. The average for the last ten years has been 16,000 tons.

Its production for shipment requires less capital than mahogany, and is frequently undertaken by small capitalists employing small gangs, who pay a royalty for cutting on the estates.

It is brought down the rivers in "bark logs," or floating cradles made of the cabbage palm, and in dorays, in which it is also conveyed along the coast.

Amongst the other woods of the colony are—

The Sapodilla (Achras sapota).—This is a most durable wood, difficult, on account of its extreme hardness, to work, but it does work up handsomely in furniture. The tree grows tall and free from branches, and one variety bears a sweet fruit with a rough rind, the naseberry, the seeds of which are used as a diuretic. It is much used locally for uprights and beams in house carpentry, but owing to the great weight of the logs can not be floated down the rivers to the ports. If this difficulty of transportation be overcome—say by the introduction of railways—this wood must find its way to European and other markets in much larger shipments than is the case now. At present it can hardly be said to be exported. There are two varieties, the black and the red, one rather scarcer than the other and not half so lofty, although about the same girth. It is a tree which grows abundantly in Honduras.

Rosewood (Dalbergia sp.).—A very heavy, rich, dark-reddish wood, very desirable for cabinet purposes, and plentiful in the colony, growing to a height of 50 feet, with a girth of 36 to 38 inches. Owing to its weight it is difficult to transport by water, an obstacle to the exportation of many of the native furniture woods yet to be overcome; about 150 to 200 tons are probably the average exportation. The so-called Bastard Rose is a distinct variety, the wood of which works up much redder in color; and there is another illegitimate of the family, the Pix, found in the colony.

Sam or salmwood (Jacaranda sp.).—A brown, very durable wood. On account of its being avoided by all kinds of insects, it is much appreciated for lining wardrobes, etc. It would, therefore, be very suitable for specimen cases for collectors of natural history objects, especially entomological specimens. The tree grows 50 feet high, with an average diameter of 2 feet. It is not exported.

Ziricote is by some considered a description of rosewood. Mr. Morris, director of the Botanical Garden, Jamaica, who made a professional tour through the colony a few years ago, at the request of the colonial government, states it to be scarce, but it is abundant in the northern district. It is only exported in small quantities. The same authority classes it amongst other timbers of the colony as yet unclassified and unknown to commerce.

Fustic.—A yellow dyewood; is well known to commerce and the trade; the *Morus tinctoria*. It is used locally for furniture work, and about 100 tons are annually exported.

Poisonwood.—Of so-called poisonwood there are apparently three varieties, but "Chechem" is simply the Indian name for all kinds of wood locally so designated. The trees are so named on account of their secreting an acrid juice which, dropping on the skin of the woodcutter, blisters it; and a local authority, a writer in the Colonial Guardian, reviewing the preliminary exhibition in Belize, describes the "Chechem" as a kind of Upas, to be under the shade of which for any time inflames the skin of the face and the eyes. The writer calls the wood of the same tree the "King of Woods," but he means of cabinet woods. The trees of the black variety are large and umbrageous, and both kinds grow abundantly in the region, the height averag-

ing between 80 and 100 feet, diameter 24 to 30 inches. The white variety of "Chem" appears to be the largest in its growth.

Santa Maria (Calophyllum calaba).—Very suitable for shingles and heavy machine work and buildings; its seeds also yield an abundant oil adapted for lamps. It is unsurpassed for shipbuilding. Height, 80 feet; diameter, 24 inches. The wood is hard and durable, and is used in the construction of mahogany trucks.

Mahol (Paritum elatum).—Yields a darkish-green wood of great value, as also the celebrated *Cuba bast*, an article of commerce prepared from the inner layers of the bark.

Balsam (Myroxylon tolifera).—Average height 40 feet and diameter 20 inches. It resembles both mahogany and sapodilla, the latter most in color of the wood. Both the gum and bark are used medicinally.

Bullet, or Bully Tree.—Height 60 to 80 feet, with a diameter of 18 inches. Plentiful. Wood not very workable, and therefore not much used. Tree yields a resinous gum.

Timber-sweet.—A low, stout tree, bearing a yellow berry; 25 to 30 feet in height, 24 to 30 inches diameter. Wood light; not used.

Madre Cacao (Erythrina umbrosa).—A plentiful tree. Height 40 to 50 feet, 15 inches in diameter. A fine hard wood, much used in house posts, and also as a shade in coffee and cacao plantations. Mr. Morris suggests as a preferable shade for cacao the India-rubber plant, giving more shade and very profitable to the planter. Grows easily from slips.

Bastard Rosewood.—Plentiful. Grows to 40 or 50 feet, 12 inches in diameter. Wood takes a high polish and is very tough.

White Maya.—A very tough wood, and takes a polish. The tree grows 60 feet, with 20 inches in diameter.

Calabash (Crescentia oujete).—A pretty growing tree, with the leaves peculiarly arranged on the branches (subpinnate). The edible pulp of the large round nut is hollowed out, and drinking cups are made of the shell.

Cabbage-bark Tree.—Grows plentifully, 40 feet by 15 or 20 inches; the wood hard and durable, used in house building and in the composition of trucks or spokes, &c.

Cinnamon, Wild.—Plenty of it; 30 feet by 16 to 18 inches diameter. Bark only used.

Buttonwood.—Extensively used locally to burn; is occasionally introduced as a variety in inlaid-cabinet work or veneering. The tree is not above 20 feet by 16 or 18 inches thick, and grows in swampy places. Used for ships' timbers.

Salaam.—A hard, durable wood, little known. Locally used for furniture, inlaid work, and capable of taking a fine polish.

Blackheart.—The tree attains a height of 30 feet, with a diameter of 12 inches. Wood hard, yellowish-brown in color, with a deep-colored heart. Takes a high polish.

Billy Webb.—In local use only. Height, 30 feet; diameter, about 24 inches. Used in constructing mahogany slides and trucks. It is plentiful, and an exceedingly tough wood.

Grandy Betty.—Grows plentifully; 40 feet by 12 inches. Wood not in use. Leaves used for a decoction.

Boy's Job.—Plentiful; 30 or 40 feet by 18 inches. A tough, hard wood; not in use, except the leaves medicinally and for snake bites.

John Crow.—Plentiful; 35 feet by 16 inches. Not used.

Pigeon Plum.—Plentiful; 40 to 50 feet by 12 to 15 inches.

Allspice (Pimento) (Eugenia pimenta).—A favorite wood for walking sticks. Its seeds are known and appreciated as a spice everywhere. The tree grows plentifully in the colony; 50 feet in height and 20 inches in diameter.

Fiddlewood (Citharexylum melanocardium).—Grows abundantly. A straight tree with copious foliage and branches, 50 to 60 feet in height, 5 feet in diameter. Little used.

Dogwood (*Piscidia erythrina*).—This is a tree of the genus *Cornus*, of which there are several species, exceedingly hard, called, also, dogwood. Javin is a variety of this wood with an Indian name. The trees grow large and straight, 80 to 100 feet, 24 to 30 inches diameter, and the wood of both is used for rollers of native sugar-mills, etc. Javin is slightly the hardest.

Granadilla.—Not to be confounded with the vine granadilla bearing a luscious fruit. This tree grows 80 feet high, and is 2 feet thick. It produces a hard, durable, finely grained red timber, and is abundant in the region. It rises 50 feet without a limb, and is therefore a conspicuous forest tree. The wood is used in furniture and house decoration.

Ironwood (*Laplacea hamatoxylon*).—Every timber region has its own ironwood. This is an exceedingly hard, dark reddish wood, with a very fine grain. Tree 25 feet high, 10 inches in diameter.

Polewood.—So called, as it is used for poles to propel canoes and rivercraft in shallow places; height, 60 to 80 feet, 10 to 12 inches diameter. Grows straight and regular and is a little used in house carpentry.

Axmaster.—A tree the woodman takes his hat off to or gives it the go-by when he can. A dark wood taking a shining polish, 40 feet by 18 inches diameter. Not much used; the tree blunts the ax and the wood resists a nail.

Lignum vitæ.

Piz or pij.—Two bastard varieties of *L. vitæ*, evidently. The fruit is scarce, and is not used when found here, at all events. It attains a height of 40 feet, and is 12 inches thick, as a rule, when grown. Plentiful, straight-bodied, 40 feet in height, 10 inches diameter. Timber used for fence posts, and the twigs make very lasting thatch.

Teaboz.—A slender tree, not used, producing an edible berry and leaves, of which a decoction, "bush tea," is made. Thirty feet high, 10 to 12 inches diameter.

Prickly yellow.—Plentifully found. A straight-growing tree, 30 feet in height, 5 or 6 inches in diameter. Wood used for hoe and other agricultural tool handles.

Silly Young.—A large tree of 100 feet growth, producing durable house timber, which is also used for slides to slide mahogany and cedar logs.

Goodluck.—A fine hardwood, looking like dark-brown satin when polished. Probably a variety of the salmwood.

Redwood.—A strong-bodied tree of 60 to 80 feet growth and 12 inches thick. Wood hard and durable, used for fence posts and in house building, and lasting well.

Turtle bone.—A ponderous and hard wood, light yellow, taking a fine polish. Growing to a height a little under 20 feet; diameter, slight; very tough, and something like logwood.

Wild Provision (*Pachira aquatica*).—A common tree in moist places and river banks, bearing a fruit the size of a small pumpkin, the seeds of which are edible. Used for fencing posts, etc.

Craboo or Crabew (*Byrsonima spicata*).—A common tree, bearing a small, acid fruit, in size between a black currant and gooseberry, which, when sweetened, makes a pleasant, wholesome drink. The bark is also locally used medicinally.

My Lady.—Grows nearly 100 feet high and 18 inches to 2 feet diameter. A yellow wood, taking a fine polish; used both in house carpentry and cabinetwork.

Mangrove, Red (*Rhizophora mangle*).

Mangrove, black (*Rhizophora sp.*).

Mangrove, White (*Laguncularia racemosa*).—The manggi of the Malays. It grows along the seashore and river banks, rooting in the mud, the seeds germinating even while attached to the branches. The cays or islands in the Bay of Honduras are densely covered with it. The wood is used to burn and the bark as an astringent. It is also used in house building and occasionally in cabinetwork, also for ship-building, in which it has a great local repute, furnishing "knees" that require little molding into the necessary shape. Average growth, 30 to 50 feet; the black is the

lowest in stature. Red mangrove, 60 to 80 feet; white, 80 feet; black, 50 feet. Diameter of all, 20 inches.

Mayflower.—This is a deciduous tree, and takes a fine polish; has a profusion of purple blossoms in May, and is a handsome tree, wide-spread, and growing to 70 or 80 feet. Used for yokes.

Botan (Palmetto) (Sabal sp.).—The leaves are used for thatch, the stem for staking and piles; 60 feet by 5 inches.

Bullhoof.—Plentiful; 80 to 100 feet, 24 inches diameter. Grows straight; not used.

Yash Nick.—A beautiful cabinet wood.

Oak (probably Quercus virens).—A short, scrubby tree, 30 to 40 feet, 12 to 15 inches diameter, of which the wood is not used. The bark is used in tanning.

Walknaked (i. e., with its bark off).—Plentifully found, growing 40 to 50 feet high; a tough, unworkable wood; not in use.

Bribbi.—Plentifully found, growing about 50 feet. An umbrageous tree, with an edible berry. The wood is not used much.

Cabbage-palms (Euterpe montana, Areca oleracea, and Oreodoxa regia).—The mountain cabbage, the trunk of which is used, especially by Caribs, in constructing dwellings and for logwood rafts, called "bark logs."

Cabbage palms (Oreodoxa oleracea).—White and red varieties, both growing 80 to 100 feet, diameter 12 inches; outside very hard, and taking a good polish. Very durable; used in house building.

Cahoun Palm (Attalea Cohune).—The tree averages 55 feet in height; valuable for its oil-bearing nuts.

Cocconut Palm (Cocos mucifera).—The use of this familiar tree of the tropics as a furniture material is, perhaps, not generally known; it is very prettily polished; 60 to 80 feet.

Tuberuce.—Much used in constructing canoes.

Crammati.—The bark of this tree is used medicinally and the tree as a furniture wood.

Yemery or Emery.—Much used for canoes.

Gombolinbo (Symphonia sp.).—A tree of 60 to 80 feet stature, 20 to 24 inches diameter; plentiful, and yielding a gum. The leaves are used as a decoction.

Ramun or Ramon (Trophis americana).—Its foliage makes fodder for cattle, but is only used when bread nut can not be obtained. It is abundant, growing 50 feet high, 20 inches diameter; wood not used.

Cockspur (Acacia spadicifera) is armed with formidable spines, one at the base of each leaf and branch, 2 inches long.

Wire Beer (Psidium sp.).—A wild guava; plentiful; height, 40 feet; diameter, 8 to 10 inches. Wood not much used.

Water Wood.—Plentiful, at a height of 50 feet, growing straight; wood used for dwelling houses.

"*Knock-me-Back*."—A small tree of 25 feet elevation, found in swampy places growing plentifully. Wood used in house building. At the end of each leaf there is an extension into a prickle or thorn, hence the local appellation.

"*Drunken Bayman*."—Abundant, but not used; grows straight, 60 feet high, with a diameter of 20 inches.

Wild Tamarind (T. indica).—A most umbrageous, handsome tree, the fruit of which is well known, covering a wide space, and plentiful in the colony, 80 to 100 feet in height. The wood is used for doreys, pitpans, etc.; also for truck wheels.

Bread Nut (Brosimum alicastrum).—Grows 80 to 100 feet by 24 to 30 inches. Furnishes good fodder for cattle.

Glassy Wood.—A tall, slim tree, the wood of which is very tough. It grows 60 to 80 feet high, 12 to 18 inches in diameter; used for beams and wall plates in house building.

Iguana Blossom.—A tree so named from its being frequented by a genus of lizard—*Iguana tuberculata* of Laurenti—which, being herbivorous, feeds on the blossoms.

The original Carib name is *guana*, and these Indians, or their mixed descendants in Honduras, eat the animal which is common to tropical America, hence the tree is often corruptly similarly named. It is looked upon by some as a mere variety of *madre cacao*.

Negrito.—A straight grower, with a resemblance to a pine, 80 feet in height, 20 inches diameter. Its stem is used for masts of vessels.

Cashaw (*Prosopis juliflora*).—A fodder tree common in the West Indies and neighboring countries, but requires caution in using. If an animal is fed on the pods when the seeds are germinating the germination is continued in the animal's intestines, and if not relieved of its last meal the poor beast dies. Breeders of stock therefore eliminate it from their pastures. (Morris states that *Prosopis* yields also a gum resembling gum arabic, and the wood of it is hard and durable.)

The Cashew (*Anacardium occidentale*) is a favorite plant on account of its edible seeds, which grow peculiarly, namely, at the end of the beautifully colored swollen stalk. The tree belongs to the sumac (*Rhus*) family, and the fleshy stalk, besides being eaten, makes a pleasing preserve and also a pleasant drink. (Morris: *Prosopis* yields also a gum resembling gum arabic, and the wood of it is hard and durable.)

Satinwood.—A hard lemon-colored local variety of a well-known furniture wood, which emits a slight fragrance, takes a lustrous polish, and is a great favorite with cabinetmakers and furniture connoisseurs. The origin of the name is obvious, and the local species grows to a height of 30 feet, with a diameter of 2 feet. That it is inferior to its Indian congener few who view it worked up in articles of furniture will consider. It is plentiful in British Honduras.

Beewood.

PALMETTOS, CALLED HERE "PIMENTOS."

The Salt-water Pimento (*Bactris sp.*).—Much used in staking wharves, resisting well the action of water, 40 feet by 4 inches diameter. Blossom used to stuff pillows, cushions, etc. The palmetto is plentiful and much used locally.

The silver pimento is covered with long spiky thorns. Tree grows 20 feet high by 3 to 4 inches diameter. Wood tough, and used in house building.

WITHES, OR LIANAS.

Locally known as "Tie-ties," and very useful to the woodmen and hunters, often supplying the place of rope and string. These parasites climb the tallest trees, and hang in graceful festoons or drop perpendicularly from the branches of their supporters. They vary in thickness from less than that of a little finger to that of the thickest part of a man's thigh, and are frequently armed with formidable thorns.

Water Tie-Tie.—So called from the circumstance that in the driest weather the thirsty traveler, if he is experienced in woodcraft, can obtain water from it by rapidly cutting off a section of the parasite by two quick cuts with his machete, and holding the section perpendicularly.

Cheew-Stick Tie-Tie.—Twigs of this vine are used by the natives of all the races in the colony as a substitute for the tooth-brush and powder of more highly advanced countries. It is also used in place of yeast to start fermentation in making ginger and spruce beer, etc.

The Pine (*Pinus cubensis*).—It is estimated that about one-third of the area of British Honduras at present known is composed of pine-ridge country.

The chief plant of the pine ridges of the colony. The timber is used only to a small extent, locally, for building purposes, owing, it is said, to the difficulty experienced in sawing it. The wood is heavy, and if seasoned properly might be very durable. For railway sleepers, the pine wood should prove most valuable; and if sawmills were provided, much timber now imported could be supplied from the native woods, and large quantities of pine might be profitably exported.

GUATEMALA.

NATIVE WOODS.

The principal woods of this country are red cedar, mahogany, cypress, and a pine used for framing purposes, somewhat similar to the Oregon pine, but vastly inferior.

KINDS OF LUMBER USED.

The principal woods imported are California redwood, for finishing purposes, and Oregon pine, for framing and flooring.

IMPORTS OF LUMBER.

There is no lumber imported from any other country except the United States, the amount of lumber from there being over 2,500,000 feet per annum.

DUTIES AND PRICES.

There is no import duty on lumber.

The prices of lumber vary from \$90 to \$120 (Guatemala silver*) per 1,000 feet at the present time, according to the rates of freight, which fluctuate more or less on account of competition.

CLIMATE.

The climate of Guatemala is as a rule salubrious. It is very warm upon the coast, but becomes much cooler in proportion to the altitude, and on the table lands of the city of Guatemala the climate may be described as being very even.

GENERAL BUILDING.

As regards shipbuilding, there is none. There is some railroad building going on in the Republic, a line being in course of construction from Puerto Barrios, on the gulf side, to the city of Guatemala.

EXTENSION OF LUMBER TRADE.

Referring to the methods to be pursued to extend the lumber trade of the United States with this Republic, I desire to state that the very high rate of exchange, high freights, exorbitant port charges in the shape of landing and pier charges, customs duties, etc., are very much against any increase of this trade.

D. LYNCH PRINGLE,
Consul-General.

GUATEMALA, *January 4, 1894.*

* The Guatemala dollar (peso) was valued at 51.6 cents by the U. S. Treasury on January 1, 1894.

SALVADOR.

NATIVE WOODS.

The native woods are as follows: Balsam, from which the balsam of Peru is obtained, and which is wholly a Salvadorean product; cahoba (mahogany); red cedar; ceiba, a 5-leaved silk-cotton tree; cola de pava, an inferior kind of volador; conocaste, a very large hard-wood tree, used for railroad ties, flooring, etc.; granadillo, brittle and speckled, worked mainly into canes, etc.; guachipilin, a solid, strong wood, used for ships; lignum vitæ; laurel, different from ours, in the bark it resembles our oak, it is springy and easy to work; mora, a fustic; madre cacao, a durable wood, which petrifies in damp ground; nispero (the medlar tree); nogal (the walnut); pino, the common and pitch pine; pochote, a species of cedar with thorny bark; quebracho (break-ax), so called from its hardness, used for fences, etc.; quita calzon (trousers-tearer), used for construction; roble, an inferior kind of oak; ron ron, resembles the guachipilin, but is rougher; tatascame, called the low climate tree, grows in great altitudes, and is used for beams, etc.; varillo, a hard, fibrous, dense-grained wood, good for building timber; volador has a white bark, but is not a birch, used in the manufacture of primitive cart wheels; zapotillo, the sapota tree; ebano (ebony), very scarce; copinol, a yellow, strong wood, out of which the native sugar-cane mills are made.

In addition to the foregoing, there are the tropical fruit trees and, chief of all, the coffee trees, from which, however, nothing is made in the shape of lumber, except walking canes and some other small articles. Some of the foregoing woods are known under different names in the adjoining countries.

KINDS OF LUMBER USED.

The kinds of lumber used and preferred are:

Native.—Cedro, conacaste, cahoba, pochote, guachipilin, and laurel.

Foreign.—Oregon pine and California redwood, and spruce (ceiling) from Canada, imported by way of Europe.

IMPORTS OF LUMBER.

The quantity of lumber imported is about 700,000 feet from the United States (California) and about 50,000 feet from Canada (via Europe), though it varies greatly from year to year. Our trade with Salvador has largely increased within the last two years.

This republic has an area of only about 9,600 square miles, while its population is 700,000, or about 85 to the square mile, which is twenty times as dense as that of any other of the Central American States. This makes timber land very scarce, and what little there is of it is

often inaccessible, because of the lack of roads, so that it is generally cheaper to import lumber than to buy it here. There exists, however, some prejudice against our lumber on the ground that it can not withstand this climate, but this prejudice is unwarranted and is passing away.

DUTIES AND PRICES.

There are nominally no import duties laid upon lumber, but by an order of the president, recently issued, a "loan" of 25 cents in gold is collected on every 100 pounds. I am endeavoring to have this order revoked.

Lumber is worth in the country, at the place where it is sawed, about 80 pesos (\$37.20) per 1,000, taking cedar for a basis, and by the time it reaches the markets of the principal towns, with the present facilities of transportation, from 100 (\$46.50) to 150 pesos (\$69.80) per 1,000. American lumber can be laid down here, without the profit, for 80 pesos * (\$37.20) rough to 100 pesos (\$46.50) finished.

CLIMATE.

The climate of Salvador is tropical, but on the mountains and plateaus, upwards of 1,500 feet above the sea level, it is healthful and agreeable. From that height down toward the valleys of the interior, or toward the coast it becomes hotter and correspondingly unhealthful, particularly in the beginning and toward the close of the rainy season (May and October).

GENERAL BUILDING.

In the principal towns, in the time of peace, there is always building going on, although not to a large extent. The houses are, however, all of wood, owing to the frequency of earthquakes. No shipbuilding is carried on, except the repairing of small boats or launches, which are brought whole or in pieces from the United States. The railroads in course of construction are those of La Ceiba-Santa Tecla, 6 miles, and the Ateos-Santa Ana line, 40 miles. These are progressing slowly. Two new lines are proposed, one from La Union to San Miguel, and the other from La Libertad to San Salvador, each about 35 miles long. The Government is building a custom-house, hospital, and barracks at Acajutla. A California company has a contract (\$160,000 in gold) to construct a bridge across the Lempa River.

EXTENSION OF LUMBER TRADE.

So long as Americans study the wants of this country and fulfill them, so long can they contest the lumber trade here. The natives do

*The peso was worth, according to U. S. Treasury valuation, 46.5 cents on April 1, 1894.

not know how to assort, care little how they season the lumber, and it is almost impossible to get from them good dimensions. The one thing to be feared by us is the reinstatement of exorbitant freight rates.

ALEXANDER L. POLLOCK,

Consul.

SAN SALVADOR, *March 5, 1894.*

SOUTH AMERICA.

ARGENTINE REPUBLIC.

NATIVE WOODS.

In regard to the native woods of the Argentine Republic, I have to state that I have already furnished the Department with a full and detailed report. It was published in Vol. x, No. 34, p. 849, of Consular Reports. It not only gives the distribution of the forests of the country from Tierra del Fuego northward to the region of the tropics (latitude 20° S., longitude 58° W.), but it describes the peculiarities and uses of the various woods, including the belts on the eastern slopes of the Andes, the subtropical trees of Salta and Oran, and the immense timber resources of the Gran Chaco, Misiones, and the Argentine Mesopotamia, together with the estimate of the future lumber trade of the Argentine Republic. The statements and descriptions of trees in that report are as applicable and apposite to-day as when they were written, and they include the specific gravity of the most important trees; so that, instead of rewriting the facts of that report, I suggest that it be made a supplementary report hereto,* as containing matters of considerable interest to those who are now seeking information on these subjects.

The number of species of trees in the Argentine Republic is stated to exceed 500, though of course many of these are mere shrubs or arborets. Of the more important woods, over 100 species were exhibited at the recent Columbian Exposition at Chicago, and these exhibits, being sections or blocks sawed from the trunks, and in most cases polished, have been presented to the Philadelphia Industrial Exhibition, where they can now be seen in all their marvelous beauty; and I presume the catalogue which accompanies them includes full descriptions.

Of those native woods which have, up to the present time, been more generally utilized either for constructions or for cabinet work or industrial purposes, the following are the most important:

Algarrobo.—The zone of this useful tree is very extensive, since it embraces the following provinces and territories: Corrientes, Santa Fé,

*The report referred to will be found immediately following this report.

Catamarca, Cordoba, Jujuy, Salta, Mendoza, San Luis, Rioja, Tucuman, Entre Rios, Santiago del Estero, Chaco, Formosa, and Pampa Central. Its varieties are the white, the yellow, the black, the red, the gray, and the violet. Its size differs according to the variety, its height being from 5 to 12 meters (16.4 to 37 feet), and its diameter from 12 inches to 3 meters (9.76 feet). Its uses are varied and important, being used greatly in carpentry work, in the turning lathe, in cabinet work, in shipbuilding, etc. Its fruit constitutes an important part of the food of the poorer classes in the interior of the Republic. It is also fed to cattle, and they rapidly grow fat from its consumption. A drink called *la aloja* is likewise prepared from it, which is very intoxicating. The outside bark is employed for dyeing purposes, giving a bright red color. The wood resists the action of sun and water without cracking, and with the application of a little oil, is almost indestructible.

Red quebracho.—This valuable tree is found in the extensive zone formed by the following provinces and territories: Salta, Santiago del Estero, Cordoba, Santa Fé, Corrientes, Chaco, Formosa, etc. It grows to a height of 15 meters (49.25 feet), with a diameter of $1\frac{1}{2}$ meters (4.923 feet). The color of the wood is very dark red. Its uses are various and valuable. As sleepers or ties for railway tracks, it is preferred to all other known woods, and the railways of the country, with the exception of those which have iron sleepers, are constructed with this class of timber. It also possesses very powerful tanning properties, and for that purpose it is employed in all the tanneries of this part of the Argentine Republic, the amount employed at present reaching 50,000 tons per annum. For this purpose it is also exported to Europe in great quantities. In the form of posts for fences it is also greatly employed. It is also used for turners' work, and for columns, beams, heavy bridge timbers, etc. It is used everywhere in the country, both on account of its hardness and its durability. It is likewise susceptible of an exquisite polish, and is extensively used for cabinet work, for doors, window sills, stairs, etc.

White quebracho.—This variety, also greatly appreciated, is found in the following provinces and territories: Salta, Catamarca, Santiago del Estero, Santa Fé, San Luis, Cordoba, Rioja, Tucuman, Corrientes, Chaco, and Formosa. It grows to about the same proportions as the red quebracho. The color is a yellowish white. It is employed for various purposes, such as shoe lasts, carriage and cart spokes, hubs of wheels, carriage and cart beds; also in all kinds of turners' work, in all which works 4,000 or 5,000 tons are annually consumed in this city.

Cedar.—This valuable wood is principally found in the territory of Misiones, though to some extent cedar forests exist in parts of the provinces of Salta, Jujuy, Tucuman, Corrientes, and Catamarca. The trees reach to a height of 15 to 28 meters (49.21 to 91.86 feet), with a diameter of 1 meter (3.94 feet). Its color is bright red. Owing to the easier and cheaper transportation by means of the Parana River,

nearly all that is used here and all that is shipped abroad is brought down from Misiones. Lately considerable of this wood has been sent to the United States. It is employed here in the construction of doors, windows, lattice work, wardrobes, counters, etc., and is greatly appreciated.

Nandubay.—The forests of this valuable timber tree are mostly in Entre Rios, Santa Fé, Cordoba, San Luis, Corrientes, and the territories of the Chaco and Formosa. Its great use is for posts for wire fencing, owing to its great specific gravity and its durability.

Cibil.—The Cibil is found in the following provinces and territories: Jujuy, Salta, Tucuman, Catamarca, Corrientes, Chaco, Misiones, and Formosa. There are three varieties, the white, the red, and the black. It grows to a height of 20 meters (65.62 feet), and its diameter is little less than a meter for the largest trees. In the provinces the bark is used for tanning purposes, and its wood is employed as beams, bridge timbers, and for domestic purposes. It is rich in rubber gum, but no efforts have yet been made to utilize it.

Gayaibi.—This tree is found in the zone formed by the province of Corrientes and the territories of Formosa, Chaco, and Misiones. The varieties are the white, the gray, and the black. It attains to a height of 12 meters (39.37 feet), and has a diameter of one half meter (19.68 inches). It is greatly esteemed by the natives. It is used for tool handles, and also for oars, masts for small vessels, cooperage, cabinet work, etc. It is flexible and yet very strong.

Laurel.—Laurel is found in the following provinces and territories: Jujuy, Salta, Tucuman, Corrientes, Catamarca, Chaco, Formosa, and Misiones, and presents three varieties—the white, the yellow, and the black. It reaches a height of from 10 to 20 meters (32.81 to 65.62 feet), and its diameter ranges from a quarter to three quarters of a meter (9.84 inches to 2.46 feet). It has exquisite veins running through the wood, and quite competes with walnut. It is extensively used for cabinetwork; also, owing to its great strength, for naval construction, and for the wood parts of agricultural machinery.

Walnut.—The walnut (*nogal*) is found in the zone formed by the following provinces: Jujuy, Salta, Tucuman, Mendoza, Cordoba, and Rioja. There are two varieties—the black, probably originally imported into the country, and the native, or white, which is a very light brown color. It is used in the interior for cabinetwork.

Rosewood.—This fine wood (*palo de rosa*) grows only in the territory of Misiones. It reaches a height of 15 to 20 meters (49.21 to 65.62 feet). It is the usual rosewood of commerce, takes an exquisite polish, and is principally used for cabinetwork and furniture. Very little, however, comes to this market, as the foreign variety can be procured more readily and much more cheaply.

Mahogany.—This valuable wood (*jacarandá*) is found only in the far northeastern part of the country, and principally in the territories of the

Chaco and Formosa. It grows to a height of 5 meters (16.41 feet), and its diameter is about 18 inches. Owing to its scarcity, it is not greatly used here, the imported article taking its place in this part of the country.

Tipa.—This tree grows principally in the following provinces and territories: Jujuy, Salta, Tucuman, Corrientes, Chaco, and Formosa. There are three varieties—the white, the red, and the yellow. The trees grow to a height of 15 to 25 meters (49.21 to 82.02 feet), and it attains to a meter (39.37 inches) in diameter. It is employed for various purposes by carpenters, and in the fabrication of yokes, plows, and the handles of tools and agricultural instruments. There is quite a demand for it also for cabinetwork, as it takes a beautiful polish.

Palo blanco.—This tree, whitewood, as it is called, is found in the following provinces and territories: Jujuy, Salta, Tucuman, Santa Fé, Corrientes, Chaco, Formosa, and Misiones. There are eight varieties, according to slight differences of color. Its height ranges, according to the variety, from 3 to 15 meters (9.85 to 49.21 feet), and its diameter is only from 10 to 60 centimeters (3.94 to 23.62 inches). It is used for a variety of purposes, and is best known in turners' work and the wood of iron machinery; also, for chairs and fine furniture. Its grain is very compact, and varnish produces upon it a beautiful effect.

Palo amarillo.—This tree, yellowwood, as its name signifies, is found in Corrientes, Santa Fé, Tucuman, Salta, Jujuy, Catamarca, Chaco, and Misiones. It attains to a height of 12 meters (39.37 feet), with a diameter of half a meter (19.68 inches). It is variously employed in turners', carpenters', and cabinet makers' work, and is much appreciated.

Palo moro.—This is the Argentine mulberry, and is found in the following provinces and territories: Salta, Corrientes, Misiones, Chaco, and Formosa. Its height varies from 10 to 20 meters (32.81 to 65.62 feet), and its diameter from 50 to 75 centimeters (19.68 to 27.56 inches). The color of the wood is bright yellow. It has a fine, compact grain, beautifully veined, and, when varnished, produces fine effects when used in cabinetwork.

Viraró.—This wood is embraced in the zone which includes the provinces of Corrientes, Catamarca, Jujuy, and Tucuman, and the territory of the Chaco. Its height varies from 14 to 25 meters (45.10 to 82.02 feet), and its diameter from 60 to 75 centimeters (23.62 to 27.56 inches). Its color is a very dark brown. It is employed in carpentry and in wagon and carriage work. It is not very abundant, and it brings high prices in the market.

Calden.—This is found in the provinces of Entre Rios, Corrientes, Cordoba, and San Luis, and the territory of the Central Pampa. It reaches a height of only 3 to 12 meters (9.84 to 39.37 feet), and a diameter of 30 to 70 centimeters (11.81 to 27.56 inches). Its color is bright red. It is a useful wood, and is not only employed in carpentry but its

bark is used for tanning purposes and its chips for dyestuffs. It is also used for fencing and for railroad fuel.

Tatané.—The zone of this tree comprehends the provinces of Salta, Jujuy, Tucuman, Corrientes, and Santa Fé, and the territories of Chaco, Misiones, and Formosa. Its height varies from 10 to 16 meters (32.81 to 51.66 feet), and its diameter from 20 to 50 centimeters (7.87 to 19.68 inches). Its color is a golden yellow. It is employed in carpentry, cabinetwork, and turners' work in the places where it grows. But little of it reaches Buenos Ayres.

Virapitá.—This tree is found in the following provinces, to wit: Santa Fé, Corrientes, Chaco, Formosa, and Misiones. Its height is from 16 to 20 meters (51.66 to 65.62 feet), and its diameter from 20 to 40 centimeters (7.87 to 15.75 inches). Its color is a silver-gray. It is used in carpentry work, cabinetwork, and turners' work. It is especially sought after for axles and spokes for wagons and carriages; also for beams and sleepers, and its chips are made use of for dyestuff.

Pacará.—This tree is found in the zone formed by the following provinces and territories, to wit: Jujuy, Salta, Tucuman, Santa Fé, Corrientes, Chaco, Formosa, and Misiones. It attains to a height of from 10 to 20 meters (32.81 to 65.62 feet), and a diameter of from 1 to 2 meters (39.37 to 78.74 inches). The color is very dark red. It is used in carpentry work, and from its dimensions is admirably adapted for beams, joists, sleepers, etc. It also makes beautiful flooring, window frames, turners' work, and furniture.

Espina de corona.—This tree, the "crown thorn," is found in the province of Corrientes and in the territories of the Chaco, Misiones, and Formosa. It reaches a height of from 10 to 15 meters (32.81 to 49.21 feet), and a diameter of about 1 meter (39.37 inches). The color of the wood is yellowish gray. It is used in carpentry work, and especially for fine furniture.

Molle.—This fine tree, with its several varieties, is scattered through the following provinces and territories: Salta, Jujuy, Cordoba, Catamarca, Tucuman, San Luis, Mendoza, Corrientes, Pampa Central, Chaco, and Formosa. Its principal varieties are the white, the red, the black, the "del monte," the sweet, the violet, and the Peruvian. It varies in height from 4 to 10 meters (13.12 to 32.81 feet), and from 25 centimeters to 1 meter (9.84 to 39.37 inches) in diameter. Its color varies from a dark gray to a black brown. The tree has valuable turning properties. The wood is variously used. From the fruit of the "molle dulce" is made a liquor called *aloja*.

Guayacán.—This tree is found in the extensive zone formed by the following provinces and territories, to wit: Salta, Tucuman, Catamarca, Ríoja, San Juan, Mendoza, San Luis, Santiago, Cordova, Corrientes, Chaco, and Formosa. There are 2 varieties. Its height varies from 4 to 15 meters (13.12 to 49.21 feet) and its diameter from 10 to 40 centimeters (3.93 to 15.75 inches). The color of the wood is black. For

turners' work, for moldings, and for veneering it is a magnificent wood. It is sought after for walking sticks. It is one of the hardest woods in the country and its endurance is wonderful.

Palma.—The palma is found in the following provinces and territories, viz, Cordova, Entre Riòs, San Luis, Santa Fé, Corrientes, Chaco, and Formosa. There are several varieties, the red, the white, and the black. It grows to a height of from 6 to 22 meters (19.68 to 72.18 feet) and has a diameter of from 25 to 30 centimeters (9.84 to 11.81 inches). The color varies from gray to gray black. In the Chaco and Corrientes the tree is greatly used, being employed for roofing of the "toldas," "ranches," and nearly all other rural constructions. It is also used for bridge flooring, for fences, for joists, and for telegraph posts. There are great forests of this tree along the Bernujo River, in the Chaco.

Urunday.—This tree is found in the following provinces and territories, viz: Salta, Jujuy, Catamarca, Corrientes, Misiones, Chaco, and Formosa. The varieties are the white, the black, and the curly. It grows to a height of from 15 to 20 meters (49.21 to 65.62 feet), with a diameter of about 1 meter (39.37 inches). Its color varies from a silver-gray to a gray black. It is used in the woodwork of all sorts of tools, for handles, for brushes, for moldings, etc. It is also employed for joists, beams, sleepers, posts, etc. It is hard and durable and is greatly esteemed in the country.

Lapacho.—This tree is principally found in Salta, Jujuy, Tucuman, and Misiones. The varieties are the yellow, the white, the red, the curly, and the black. Its height is from 15 to 30 meters (49.21 to 98.43 feet) and its color varies from a greenish gray to a gray black. It is used for the spokes of wheels, for which purpose it is claimed to be the best wood in the world. It is also a beautiful wood for cabinet-work, and is greatly used for turner's work and fencing; likewise for dyestuffs. It is regarded as one of the most valuable trees which grow in the Argentine forests, and there is a general demand for it.

Guayabo.—This tree is found in the zone formed by the following provinces and territories, viz: Santa Fé, Entre Riòs, Corrientes, Chaco, and Misiones. It grows to a height of 15 meters (49.21 feet) with a diameter which varies from 50 to 75 centimeters (19.68 to 29.53 inches). Its color is red, with veins of yellow and black. There is a variety also of a bright gray color. It is admirable for cabinetwork, for fine furniture, for turners' work, and for veneering. Its bark is used for tanning purposes. Its fruit is very aromatic and is used for jellies, deserts, etc.

Inga.—Forests of this tree are found in the following provinces and territories, viz: Entre Riòs, Santa Fé, Corrientes, Misiones, and Formosa. It presents two varieties, called the bitter and the sweet inga. The "bitter" attains to a height of 10 to 15 meters (32.81 to 49.21 feet), with a diameter of 40 to 75 centimeters (15.75 to 29.53 inches). The "sweet" reaches to a height of only 4 to 6 meters (13.12 to 19.78 feet) and a diameter of 20 centimeters (7.87 inches). The wood of the first-named

variety is brownish gray; of the second, greenish gray. It is used in turners' work. The fruit of the tree is edible.

Palo de lanza.—The "lance wood" embraces the zone formed by the following provinces and territories, viz: Solla, Santa Fe, Misiones, Chaco, and Formosa. It grows to a height of 15 meters (49.21 feet) with a diameter of 50 centimeters (19.68 inches). The color of the wood is a bright gray. It is used for turners' work, for chairs, for handles, etc.

Peteriby.—This tree grows principally in the provinces of Santa Fe and Corrientes and in the territories of Misiones and Chaco. Its height varies from 15 to 18 meters (49.21 to 58.22 feet), with a diameter of 30 to 50 centimeters (11.81 to 19.68 inches). The color is a bright brown, very similar to walnut. It is used for cabinetwork, for furniture and other carpentry work. It is also employed for beams, joists, etc.

Cheñar.—The zone of this tree is quite extensive, being found in greater or less quantities in all parts of the country; but especially in the following provinces and territories, viz: Cordoba, Jujuy, San Luis, Santa Fé, Tucuman, Santiago, Pampa Central, and the Chaco. It grows to a height of 5 or 6 meters (16.44 to 19.68 feet) with a diameter of 50 centimeters (19.68 inches). It is used in all kinds of carpentry work.

Palo ribera.—This tree, "river wood," is quite abundant in the territories of the Chaco and Formosa, and especially along the Bermijo River. It attains to a height of 12 to 18 meters (39.37 to 49.21 feet), a diameter of 50 to 80 centimeters (19.68 to 31.50 inches). It is not yet very well known in Buenos Ayres, as it is rather inaccessible to the woodchoppers. Its color is rather unique—dark cinnamon, with reddish veins. When polished it presents a magnificent surface, and, combined with other woods, in cabinetwork, produces beautiful effects. When better known, it will evidently be sought after.

Alamo blanco.—This is the white, or "aspens," poplar of the United States. It is found all over the Argentine Republic, and, as with us, it is used for all sorts of purposes. Being about the only light wood in the country, it is employed in carpentry work, for packing-boxes, for common furniture, for broom handles, and for many other purposes. It grows without any attention, and immense plantations are everywhere to be seen. It is especially used by *estancieros* for belts of timber around their habitations, to break the force of the wind and thus protect their flocks.

Alamo Carolina.—This is nothing more than our ordinary cottonwood, which grows with such wonderful luxuriance on the low banks and islands of the Mississippi River. It may be indigenous to this country, but I think the tree was imported from us by Dr. Sarmiento, when he was minister to the United States. On the prairies and pampas of the Argentine Republic, on account of its rapid growth, it is greatly appreciated, and is regarded as a much better wood, owing to its heavier body, than the white poplar. As it is easily worked, it is used for all sorts of carpentry purposes.

Willow.—This tree grows very generally all over the Republic, and especially along the water courses. It covers the islands of the Delta of the Panama River. It furnishes nearly all the firewood of the city of Buenos Ayres. Every three years it is cut for that purpose, and new trees spring up from the stumps. It is likewise used for common furniture, for turners' work, for wooden shoes, etc.; and as it flourishes with a rapid growth in the timberless regions of the country it is regarded as one of the most useful trees of the Republic.

SPECIES AND VARIETIES, AND THEIR EXPLOITATION.

I have thus, according to request, enumerated thirty-six different species of native trees, all indigenous to the Argentine Republic; and, as has been seen, some of these species have several distinct varieties, the whole number amounting to at least forty, so that really the above enumeration includes not less than seventy-six varieties of Argentine woods. The catalogue might be still further extended; for many other "unusual" varieties are known to exist, though I am not just now able to describe them.

It will be observed that many of these woods, not having yet been properly classified, still bear the names given them by the Guarani Indians or the early Spanish settlers. Likewise it will be borne in mind that it is only in the far western, northwestern, and northern portions of the country that the timber plantations of the Argentine Republic are to be found—in many cases over a thousand miles from tide water. The Atlantic side of Patagonia is a desert; the territory of the Pampa is in great part destitute of trees, and the Province of Buenos Ayres and the southern portion of that of Santa Fé are also in the natural state without other vegetation than the grasses, though of late years vast artificial plantations have been made in all directions through the interior. Furthermore, it is to be considered that all the woods I have enumerated above, except it may be the willow and the poplars, are what are called "hard" woods, whose specific gravity in almost all cases is greater than that of water.

With such classes of woods to deal with, and with the great forests of the country so far removed from the seaboard, especially from Buenos Ayres, which is the great receiving and distributing focus of the Argentine Republic, some idea may be entertained of the labor of getting the timber resources of the interior to market. Yet the exploitation of the timber trees of the upper provinces and territories, especially along the Parana and Paraguay rivers, has been going on with more or less persistency for a great many years; and the choppers and the sawyers, without government officials to molest or make them afraid, have used their privileges with so little care and consideration that in some parts of the interior, especially along the water courses, the havoc and wholesale destruction have been shameful. So little respect, indeed, was paid to the national forests that, a few years ago, the government

enacted a law prohibiting the cutting of timber on the public lands except by special permission which had to be paid for, and then the work was required to be done under special conditions. Though the timber thieves still get in their work in the remote places, there is now more system and somewhat more care displayed in getting out lumber.

NATIVE ESTIMATE OF ARGENTINE WOODS.

As showing the estimate which the more intelligent portion of the Argentine people place upon their forest riches, I translate the following from a recent issue of the *Buenos Ayres Nacion*:

Our national forests present a superabundant element of riches; and, if wise laws are made to protect their production, in a few years the Republic will be able to get along without importing foreign lumber and be prepared even to export all kinds which are suitable for city or rural constructions or as auxiliary to other important industries. Among the five hundred varieties which have been catalogued there are many woods of great value; and there is no object or use or necessity or industrial purpose which can not be supplied by some of the classes of these woods. At present, however, it must be confessed that these great forest riches are but slightly appreciated by the majority of our people. What a wonderful source of wealth they would be if they were the possession of some more enterprising nation! The greater part is of spontaneous growth and owes nothing to the hand of man, which from time immemorial has, on the contrary, done all it could to destroy what nature has provided for the country.

Science, reason, and common intelligence condemn the manner in which the forests of the nation have been exploited. Without entering into details, it is sufficient to say that the damage and destruction under the present system are greater to the country than the profits. Everybody sees the manner in which, despite the law on the subject, the natural forests are being ruined, but how few apply the remedy against the devastation which is going on.

THE SAWMILLS AND SAWYERS OF THE COUNTRY.

The number of sawmills in the country are now numbered by thousands, and they are quite generally distributed, not only along the shores of the upper rivers, but in the interior provinces. On this subject I translate from a recent number of the *Buenos Ayres Prensa* the following:

There is one industry in the Republic which at least can count on an extraordinary number of establishments of every magnitude, from the least with a single mule power (*movido por la perezosa mula*) to those of the largest dimensions, stocked with the very best machinery which the world affords. We refer to the sawmills of the country. There is no province or territory, whether in the north or the south, which does not count on a large number. It may be stated as a fact that the woods of the country furnish labor for a larger number of artisans and laborers than that of any other industry. In the Province of Santiago del Estero, no less than 5,000 workmen are employed in no less than 200 different establishments, most of them in the Sierras, getting out *quebracho* sleepers for railways, white *quebracho* beams for constructions, woods of other descriptions for cabinet work, and joists and scantlings and boards of other timbers, besides the large amount of fuel for the numerous railways of that vicinity. In the Province of Tucuman there is even a larger number of lumbermen and a larger number of establishments. In the Province of Cordova the working up of the *algorroba* forests sustains a still greater number of sawmills and employés,

which throw upon the market monthly millions of "breadths and lengths" (*Pierries y cabazales*) bedsteads, knees, square knees, and various other products of the algarroba and other hard-wood trees. The Province of Santa Fé, not only in the neighborhood of its cities, but in its various colonies, has a large number of sawmills and carpenters; and especially in that portion of its territory which adjoins the Gran Chaco, there is a large population whose principal occupation is working the red *quebracho* forests, as it is from this province that the greater part of the *quebracho* chip, used in Europe for dye woods, are obtained. In the province of Entre Rios, likewise, there is a considerable number of well established mills, besides a still larger number of moving circular sawmills, which are now penetrating to the very center of the immense forests of that part of the Republic, turning out all kinds of lumber and hard wood. And the same is the case in the Province of Corrientes, where there are extensive forests of *quebracho* and other choice timber. But in the territories of the Chaco, Formosa, and Mision, the lumbermen and the sawmills are especially to be found. The amount of capital invested in the lumber trade, in those parts of the Republic, reaches to millions of dollars; and the establishments there are commensurate with the vast wealth of timber of the most valuable varieties, which are to be found there. The lumber business of the provinces of Salta, Jujuy, Rioja, Catamarca, San Luis, Mendoza, and San Juan, though of much less importance, owing to their distance from a marketable outlet, is yet very considerable, as all the lumber of every kind and description which they use is furnished by their own forests. Here in the city of Buenos Ayres, though the lumber and woods must all be transported here, there are thirty-nine sawmills and seven hundred and forty-three carpenter shops. Besides there are numerous similar establishments in the cities of La Plata, Chirilcoy, Tigre, San Fernando, Bahia Blanca, San Nicolas, Campana, and other places.

THE LUMBER INDUSTRY.

I am not able to state—for no census has ever been taken—the total number of workmen and laborers engaged in the lumber industry of the Argentine Republic; but the following table, which has been prepared with considerable care, gives an approximation of the number of persons thus employed for the year 1892:

Place.	Number.	Place.	Number.
City of Buenos Ayres.....	12, 000	Province of—	
Province of—		Jujuy.....	500
Buenos Ayres.....	6, 000	Rioja.....	500
Santiago.....	5, 000	San Luis.....	500
Cordova.....	5, 000	Territories—	
Tucuman.....	4, 000	Chaco.....	750
Santa Fé.....	5, 000	Central.....	500
Entre Rios.....	3, 000	Formosa.....	800
Corrientes.....	2, 000	Misiones.....	750
Catamarca.....	1, 000	Pampa.....	250
San Juan.....	1, 000	Patagonia.....	250
Mendoza.....	1, 000		
Salta.....	1, 000	Total.....	50, 800

ANNUAL LUMBER OUTPUT.

In regard to the output of the lumber industry in the interior provinces, it is not possible to give any figures. That there is an exchange of trade between the sawmills and the provincial centers of population, which in the course of the year amounts to several millions of dollars, is evident from the fact that all the houses, habitations, galpones, barns,

fences, corrals, and the ordinary furniture and carpentry work of the people are entirely constructed from timber of the native forests. While the cost of transportation, except it be along the great rivers, precludes the exportation of the native woods, the same reason prevents the use in the far interior of the soft woods of other countries. Buenos Ayres is, however, advantageously situated in this respect, since it is enabled not only to receive the valuable cabinet woods of the Chaco and Misiones by means of *chatas* and other river craft, but also, at moderate freights, the pines and spruces of North America. The quantity of hard woods which find a market here in Buenos Ayres is increasing every year, as the industries of the place find additional use for them. The receipts for 1892, according to the custom-house returns, were as follows:

Class of woods.	Quantity.	Value.
Hard wood:		
Logs.....number of pieces..	108, 208	\$324, 624
Slabs.....do.....	330, 074	42, 910
Sawed.....do.....	239, 634, 871	1, 198, 174
Cedar.....square meters..	1, 387, 930	1, 110, 344
Various cabinet woods.....do.....	254, 448	114, 501
Quebracho woods.....do.....	386, 755	193, 387
Nandubay:		
One-half posts.....number..	1, 577, 175	473, 152
Posts.....do.....	785, 544	392, 772
Quebracho blocks.....kilograms..	23, 416, 669	468, 333
Total.....		4, 318, 187

INDUSTRIAL ESTABLISHMENTS IN BUENOS AYRES.

These figures are for a year in which there was unusual depression in the industrial establishments of this city, and I am sure, with the return of the normal condition of business, the figures would double the value. But of course it is not merely the native woods which are worked in this city. The immense shipments of the soft woods from North America contribute materially to the total quantity used by the workers in wood in this vicinity. The latest statistics (1887) in regard to the number of such establishments in Buenos Ayres are:

Woodworking establishments.	Number.	Woodworking establishments.	Number.
Carpentry shops.....	651	Shoe lasts.....	32
Steam sawmills.....	36	Bird cages.....	5
Walking-stick, etc., manufactories.....	10	Mechanical carpentry shops.....	22
Trunks.....	16	Furniture factories.....	301
Wood-hemp shoes.....	62	Parasols and umbrellas.....	11
Billiards.....	6	Coopers and coopering establishments.....	14
Carriages and wagons.....	84	Turners' shops.....	28
Brushes.....	5		
Building establishments.....	57	Total.....	1, 373
Brooms.....	33		

Since the above date, the number of these various establishments has greatly increased, and there are now to be added to them a number of boat yards, where all classes of water craft, from whaleboats to large-sized steamers, are constructed and fitted out.

EXPORTS OF NATIVE WOODS.

In regard to exports of lumber from the country, there is as yet very little to be said. As we have seen, while the upper territories and provinces are an unbroken forest of primeval proportions, in which are to be found hundreds of varieties of hard woods, susceptible of the very finest polish and presenting the most exquisite colorings, yet the country is almost devoid of the soft woods of commerce. There are pines in the territory of Misiones and along the eastern slopes of the Cordilleras of Patagonia, but they are quite inaccessible to market. Years hence, with the development of the country, they may come to the front. At present the only woods which are shipped abroad are the hard woods of the upper Paraná. Owing to their specific gravity, it is impossible to float the logs, and so they are brought down in chutes or are loaded from the banks directly in sailing vessels bound for Europe. The first movement towards the export of Argentine woods was made in 1875. Since then the annual shipments to foreign markets have been:

Year.	Export value.	Year.	Export value.
1875.....	\$29,171	1884.....	\$390,848
1876.....	10,541	1885.....	339,022
1877.....	57,090	1886.....	326,623
1878.....	14,943	1887.....	330,214
1879.....	58,793	1888.....	781,793
1880.....	36,403	1889.....	799,257
1881.....	272,613	1890.....	1,413,224
1882.....	222,358	1891.....	2,145,510
1883.....	257,887	1892.....	1,066,819

It is evident from these custom-house returns that the greater portion of the lumber and precious woods of the country are made use of here at home. The value of the forest exports for 1891 amounted to about 8 per cent of the total exports. In 1892 it amounted to about $4\frac{1}{2}$ per cent of the total exports. The exports of these years embraced the following items:

Exports of lumber, woods, etc.	Value in—	
	1891.	1892.
Vegetable carbon	\$299,484	\$257,485
Cedar wood	72,825	44,892
Sleepers	173,635	56,964
Nandubay posts	4,633	5,862
Various woods	181,152	27,079
Nandubay half posts	110,121	34,917
Quebracho—		
Slabs	630,419	87,864
Blocks and chips	615,209	529,847
Not named	57,827	21,909
Total	2,145,505	1,066,819

All these shipments went to European ports, except a small portion of the cedar and of the quebracho, which was sent to the United States

as an experiment and to try the market. I do not think, however, the result of the ventures was at all successful.

Speaking in general in regard the business of exporting lumber and hard woods from the Argentine Republic, it may be said that it has not been profitable in the past, and it has to be managed on a different basis to reach to any great proportions in the future. The great drawback to a successful prosecution of the industry results from the fact, in the first place, that even the most accessible forests are so remote from tide water that the cost of freight is out of proportion to that for which the hard woods of Central America and portions of Brazil can be sent to market. It is true that, at certain seasons of high water ocean-going vessels can be loaded far up the Parana, and even Paraguay, and thus convey their cargoes, without breaking bulk, to their trans-Atlantic destination. But in many cases, the lumber has to be brought down in small craft, or *latas*, and reshipped, thus making another handling necessary. And in the second place the appliances for handling logs and heavy timber on the upper rivers are so primitive and the laborers so inefficient that the getting out of it is very expensive.

IMPORTS OF LUMBER.

As long as the people of this part of the Argentine Republic, for ordinary carpentry and building purposes, are able to procure the pines and spruces from North American ports with as little trouble and expense as they have been doing in the past, it is not probable that there will be very great attention paid to the heavy hard woods of this country. Of course the shipments of North American soft woods vary according to the demands of the trade. When everything is "booming" the requirements of the country are greater than when there is general stagnation in business. The crisis, which has been so severe for several years past, has been especially felt in house building, house furnishing, estancia fencing, and general construction; and the receipts of lumber from abroad, which reached their highest figures in 1889, have since then shown a great contraction.

The following table, which I have in great part compiled from the official returns, shows the value of the importations of lumber into the Argentine Republic since the year 1870, inclusive:

Year.	Value.	Year.	Value.
1870.....	\$2,352,701	1882.....	\$2,019,216
1871.....	1,702,403	1883.....	2,424,682
1872.....	2,341,012	1884.....	3,803,751
1873.....	3,257,545	1885.....	4,751,942
1874.....	2,932,114	1886.....	5,368,610
1875.....	2,071,974	1887.....	6,627,130
1876.....	621,497	1888.....	5,699,657
1877.....	1,058,904	1889.....	8,389,533
1878.....	617,647	1890.....	5,120,087
1879.....	1,187,732	1891.....	1,832,213
1880.....	1,080,897	1892.....	3,201,707
1881.....	1,663,634	1893.....	2,949,433

It is hardly necessary to state that a very large proportion of the lumber imported into the country comes from the United States. The returns of imports for 1893 by countries have not yet been published by the statistical office, but I give below those for 1892:

Importations of pine lumber for 1892.

Country.	Quantity.	Official value.
	<i>Sq. meters.</i>	
United States.....	6,683,846	\$2,788,521
Italy.....	5,261	2,151
Great Britain.....	141,783	59,814
Norway and Sweden.....	27,998	11,479
Uruguay.....	184,026	65,419
Country not named.....	75,131	21,818
Total.....	7,118,045	2,949,202

Importations of woods for 1892.

Country.	Quantity.	Official value.	Country.	Quantity.	Official value.
	<i>Square meters.</i>			<i>Square meters.</i>	
Walnut:			Cedar:		
Germany.....	2,982	\$2,982	Germany.....	10	\$4
Belgium.....	61,062	61,062	Brazil.....	192	63
United States.....	4,475	4,475	Paraguay.....	160,381	61,537
France.....	7,234	7,234	Total.....	160,583	61,604
Italy.....	2,461	2,461			
Countries not named...	9	9	Other woods:		
Total.....	78,223	78,223	Germany.....	449	359
			Chile.....	19,066	7,217
Oak:			United States.....	12,227	9,770
Belgium.....	2,831	2,265	Paraguay.....	377,651	75,946
United States.....	11,360	9,088	Uruguay.....	18,610	7,769
Uruguay.....	183	164	Total.....	428,004	101,161
Total.....	14,374	11,517			

The total number of square feet of lumber imported into the Argentine Republic in 1892 was 7,799,229, of a total official value of \$3,201,707, gold.

The custom-house returns do not distinguish the different kinds of pine which are embraced in the above figures for 1892, and I have no means of finding out. For the year 1893, however, I observe from Norton's U. S. Shipping List that the pine shipments to the River Plate were as follows: 32,377,000 feet of white pine, 42,116,000 feet of spruce pine, 43,497,000 feet of pitch pine, and 972,000 feet of Oregon pine, and probably this is about the usual proportion of each.

DUTIES ON IMPORTED LUMBER.

All ad valorem duties on articles imported into the Argentine Republic are liquidated according to their values as fixed by a custom-house or valuation tariff. The duty on all lumber, no matter what may be the variety, is 25 per cent, except for unworked white pine or spruce,

in which case the duty is only 5 per cent. I quote from this tariff as follows:

Kind of lumber.	Official value.	Duty.
		<i>Per cent.</i>
Cedar square meter..	\$0.30	25
Lepacho, quebracho, and urunday, etc.....do....	.20	25
White pine or spruce:		
Unworked do....	.41	5
Worked do....	.50	25
Hard pine and white poplar.....do....	.45	25
Hard pine and white poplar, worked.....do....	.58	25
Walnut do....	1.00	25
Oak, maple, cherry, etc.....do....	.80	25
Mahogany do....	1.70	25
Pine and spruce, unworked, of less than 20 millimeters.....do....	.50	25
Veneering of—		
Mahogany or walnut.....do....	.13	25
Rosewood.....do....	.70	25
Nandubay—		
Posts.....each..	.45	25
Half posts.....do....	.30	25
Pickets.....do....	.13	25

It will be seen from this tariff that while the Canada white pine or spruce unworked pays a duty of only 5 per cent on a valuation of 41 cents per square meter, the hard pine of the United States is required to pay a duty of 25 per cent on a valuation of 45 cents per square meter, a discrimination which on its face appears very unjust to the shippers of lumber from the United States, and which has already created no little comment down here.

In the case of pine lumber there is allowed 6 per cent for breakage and rot; for other kinds of lumber in boards, 3 per cent, and for veneering, 5 per cent for breakage.

For unworked lumber, valued by the square meter, 25 millimeters are allowed, and for worked lumber 22 millimeters. In the case of veneering no allowance is made. For lumber which comes as "deck load," no allowance is made for its wet or damaged condition.

PRICES.

The prices in this market for imported lumber depend, of course, a good deal on the supply and demand at any given time. A large number of arrivals together or in quick succession very perceptibly influences the figures for which cargoes can be sold. The scale of prices at present, as given to me by Messrs. C. S. Roberts & Co., are as follows:

White Pine.—Deck load, \$36; No. 8, \$41 to \$42; good shippers, \$51 to \$52; selects, \$68 to \$69 gold per 100 square meters dispatched; six months' credit.

Spruce Pine.—\$26 to \$27 gold per 100 square meters dispatched; six months' credit.

Hard Pine.—\$41 gold per 100 square meters dispatched; six months' credit.

Oregon Pine.—\$28 to \$30 gold per 100 square meters dispatched; six months' credit.

Walnut.—\$195 gold per 100 square meters dispatched and delivered in buyer's yard; six months' credit.

Oak.—\$80 to \$95 gold per 100 square meters dispatched and delivered; six months' credit.

CLIMATE.

In so vast an extent of territory, with the varying levels of its surface, there is necessarily considerable variation in the climate. While the extreme portions of Patagonia reach to the Antarctic regions, with a corresponding depression of the temperature, in the northern parts of the Republic a perpetual summer reigns, without, however, the intense heat of the tropics. The climate of the central portion corresponds very nearly to that of southern Europe. The name of the capital is an eloquent testimony in favor of the climate in this part of the country. The pure, invigorating atmosphere produced such an impression on the first colonists or conquerors, under Mendoza, that in addition to the indispensable saint's name they affixed that of "Good Airs" (Santa Maria de Buenos Aires), a designation which all the pampa provinces fully deserve. This part of the Argentine Republic, however, is not a perpetual spring, much less a perpetual summer. The seasons here are quite clearly defined, and if the mercury seldom reaches even to the freezing point, it is none the less a fact that the bleak winds and cold rains of the winter months not only make heavy clothing and warm fires exceedingly desirable, but not unfrequently kill the fruit blooms of the peach and other fruit trees.

According to the meteorological reports of Dr. Tome, the distinguished American scientist in charge of the National Observatory at Cordova, the following is the mean monthly temperature of Buenos Ayres, the thermometer used being the centigrade, the readings of which can be reduced to those of the Fahrenheit by the usual formula, $F = \frac{9}{5}C + 32$. I also add the mean monthly readings of the early barometer in millimeters.

Month.	Fahrenheit.	Centigrade.	Barometer.
	Degrees.	Degrees.	Millimeters.
January.....	75.63	24.24	758.37
February.....	74.19	23.44	759.14
March.....	70.25	21.25	759.92
April.....	62.43	16.94	761.99
May.....	56.62	13.68	761.81
June.....	52.05	11.14	762.73
July.....	49.68	9.82	765.42
August.....	53.15	11.75	762.69
September.....	56.64	13.69	763.04
October.....	62.35	16.85	761.31
November.....	68.36	20.20	760.25
December.....	73.29	22.94	757.88
Mean.....	62.80	17.11	761.10
Maximum.....	106.04	37.80	780.00
Minimum.....	36.60	-2.00	742.00

These computations were made from observations taken in 1880, but they are equally good at present, owing to the very slight variations in the daily readings for any year.

In regard to the seasons, it will be borne in mind that, being south of the equator, they are exactly opposite to those of the United States, viz: Spring, September, October, November; summer, December, January, and February; autumn, March, April, and May; winter, June, July, and August. The seasons, however, run into each other so imperceptibly that in reality the year here may be divided into two seasons; the warm, which extends from October to April, inclusive, i. e., seven months; and the cool, which extends from May to September, inclusive, i. e., five months.

GENERAL BUILDING.

In regard to the construction of the buildings of this country, the houses, in the early days of its history, met the necessities of the people in a very primitive way. No particular consideration was given to the modern idea of comfort. Very little wood entered into their construction. Mud bricks and a very poor article of mortar were the principal ingredients, and the style was the old-fashioned one-story, shambling house, with a flat, or "azotea," roof, also of brick, constructed after the manner of the Moorish dwellings of early Spain, with a court in the center. As this was before the era of coal shipments from England, and there was little wood in the country nearer than the Gran Chaco, they made no fireplaces or other provision in the houses for fires; and the inhabitants, in a comfortless way, when the winter was upon them, huddled around an iron *brasera* of smouldering charcoal set in the middle of the room, or went without fire altogether. But with the opening of the coal trade with Great Britain, and the utilization of the upper river forests, there has gradually been a great change in the architecture and conveniences of the houses of Buenos Ayres, and during these late years, in their general appearance, in their internal arrangements, and in the use of fireplaces, grates, stoves, and furnaces the houses remind one of the dwellings and business blocks of the cities of the United States.

As to the extent to which general building is carried on in Buenos Ayres at the present time, it may be said that this branch of industry is at present somewhat depressed. There is no activity in house-building, ship-building or railway-building. In all these interests the country for the last three or four years has been so severely affected by the financial crisis, which has not only caused the Government to default, but many business men to go into bankruptcy, that there has been a decided let-up in all classes of construction. Indeed, during the "boom" which preceded the crisis, building of all kinds was so greatly overdone that that branch of business was among the first to feel the effects of the stringency.

Railway construction is quite at a standstill. Last year only 639 kilometers of track were laid, the total number of kilometers in the whole country now being 12,920 (8,028 miles), representing a total capital of \$429,582,917.

Shipbuilding never has amounted to much in the River Plate, and the few river craft are of no great significance. Still there are several shipyards where extensive repairing, refitting, and refurnishing are done, and these always seem to have "plenty to do."

Housebuilding, especially here in Buenos Ayres, during the years from 1886 to 1890, had a great development along with the great activity in real estate. The number of transfers of real estate in 1890 in this city was 9,340, embracing 9,700,971 square meters, for the aggregate sum of \$80,862,716 paper currency, equal to about \$25,000,000 gold. For some unexplained reason the annual municipal statistics do not state the number of building permits or buildings erected each year, and hence I am not able to give any figures on the subject; but a very large proportion of the transfers each year are made with a view to the erection of buildings upon the lots. There has been no census of Buenos Ayres since 1887, and at that time the following were the building statistics of this city:

Brick houses	24, 065
Wooden houses	2, 084
Mixed houses	7, 613
Public edifices	193
Houses in course of construction	489
Total in 1887	34, 444

Assuming that 500 is the average number of houses annually erected, it would appear that the present number of distinct habitations in Buenos Ayres is about 37,500; and as it is claimed that the number of dwellers to a house in this city, including *conventillos* or constructions for the poor, is 15, it follows that the present population of Buenos Ayres is 562,500. The number claimed by the municipality is 582,000.

House-building, however, as we have seen, is not the only use to which North American and native lumber and woods is applied. A large quantity is consumed in paling and picket fencing; in the manufacture of chairs and other furniture, now made here in the styles of France, England, and the United States, but which, owing to the increased duties recently placed upon foreign furniture, it is no longer possible to import without a loss; in the manufacture of dry goods and packing boxes; in the manufacture of barrels, hogsheads, and other coopers' work, though there is still a very large trade in American "shooks;" manufacture of shoe lasts; of all sorts of turners' work; of carriages, carts, and wagons; of boats and naval construction and repairs; and for a thousand other objects, for which with the growth of manufactures in this city the multiplied necessities of life call into requisition the different varieties of wood and lumber.

IMPORTERS OF AMERICAN LUMBER.

In concluding this report, it may be well to state that the most important and best known importers of North American lumber and dealers in native woods are the following:

C. S. Roberts & Co., Calle San Martin, No. 76.
 Thomas Drysdale & Co., Calle Moreno, No. 433.
 J. & J. Drysdale & Co., Calle Peru, No. 440.
 Shaw Bros., Calle Piedras, No. 76.
 J. Shaw & Sons, Calle Venezuela, No. 860.
 George Bell & Sons, Calle Defensa, No. 649.
 C. S. Bowers & Co., Calle Cuyo, No. 472.
 Lahusen & Co., Calle Peru, No. 23.
 Shaw, Miller & Co., Calle Alsena, No. 471.
 Warden & Co., Calle Belgrano, No. 573.

And the list might be further extended. All necessary information in regard to the methods pursued here in the lumber trade, or in regard to the disposition of cargoes will be readily furnished to the lumber dealers and exporters of the United States upon application by letter to any of the above-named houses.

E. L. BAKER,
Consul.

BUENOS AYRES, *March 3, 1894.*

SUPPLEMENTAL REPORT.

THE WOODS OF THE ARGENTINE REPUBLIC.*

BOTANY OF THE COUNTRY.

As yet there has been no complete scientific exploration of the vegetation of this country; but the subject has occupied and is still occupying the attention of a number of well known scientists, some of whom are making their investigations under the special patronage of the National Government. Of course the fruit of their labors in regions so remote and so wild can not be gathered in a day, but already no little headway has been made in the botanical survey of the country, and most important results, not only in the collection of specimens, but in the classification of trees, have been obtained. It appears that the first systematic study of the vegetation of the Argentine Republic was made by Dr. Lorentz, who was called from Germany to fill the chair of botany in the University of Cordova. He was succeeded in the same chair by Dr. Hieronymus, also of Germany, who has made the most complete collection of woods in the country that is to be found anywhere, and who informs me that he has now in press a report of the results of his studies. This, of course, is not yet accessible, and hence I am not able to profit by his labors. The information which I have embodied in this report has been obtained from a "report on the vegetation of the Argentine Republic," by Dr. Lorentz; from the late volumes of M. Martin de Moussy, in French, on the "geographical and statistical description of the Argentine Republic;" from a work on "the Argentine Republic," in German, by Sr. Ricardo Nap, formerly in charge of the Argentine national statistical office, and from information which I have derived directly from Prof. A. P.

* From Consular Reports No. 34, 1883.

Burns, an American now resident in this country and in charge of the national powder establishment at Rio Cuarto, all of which sources of information are supplemented by my own observations in various excursions through the different parts of the country. It is proper, however, to state that there are still many portions of the Republic, especially the formations of the Gran Chaco and Misiones, about whose flora very little is yet scientifically known, while much of our knowledge of other parts of the country may be only superficial.

DISTRIBUTION OF FORESTS.

I would premise by stating that the distribution of forests in the Argentine Republic is very unequal. While some parts are thickly covered with timber, other portions, though abounding in rich and succulent grasses, are entirely devoid of trees, corresponding in this respect to our Western plains. Other parts, again, are almost without soil, and sterile, exhibiting only the scantiest manifestations of a stunted vegetation, while still others are covered to a more or less extent with bosquets of low shrubs or brushwood. Extending, however, as the Argentine Republic does, from Cape Horn on the southern extremity of Terra del Fuego (latitude 56° south, longitude 67° west), almost within the antarctic circle, to the regions of the tropics (latitude 20° south, longitude 58° west), the great diversity of vegetation in its 45,392 square geographical leagues of area can well be understood. On this account the surface of the country has been divided by some naturalists * into not less than nine different formations, corresponding to the species of flora which they afford, and to the physiognomy of their vegetation in general. While noticing these distinct groups it is not, however, necessary to do more than give a very general description of them, since some of them contain nothing which can be dignified with the name of timber. For the purposes of this sketch, which has nothing to do with the classification of the flora of the country, much less with their structural composition or physiological peculiarities, but simply with "the products of the forests," i. e., their economic uses, as affording timbers, fiber, dyestuffs, tanning materials, etc., it is much more convenient to follow the geographical divisions which naturally present themselves, since thus their localities can be better identified and understood.

TERRA DEL FUEGO AND THE ADJACENT ISLANDS.

I begin, then, at the southern extremity of the continent, which includes Terra del Fuego and the numerous adjacent islands. In regard to this region, which has never been fully explored, I am able to present but few data, for the reason that so little is yet known as to its flora. It is, however, reported to be most densely covered with forests, composed almost entirely of beechwood (*Fagus betuloides*) and winter's bark. This beech keeps its leaves all the year, having a foliage of a peculiar brownish-green color, with a tinge of yellow. Prof. Darwin, who visited Terra del Fuego in 1832,† says it is almost impossible to find an acre of land not covered by the densest forests. He described the country as a mountainous land, partly submerged by the sea, so that deep inlets and bays occupy the place where valleys should exist. The trees, which covered the mountain sides from the very water's edge, reach to an elevation of between 1,000 and 1,500 feet, and are succeeded

* Prof. Lorentz divides the vegetation of the Argentine Republic into the following formations: (1) Formation of the Puna; (2) subtropical formation; (3) formation of the Chaco; (4) monte formation; (5) formation of the Pampa; (6) Patagonian formation; (7) formation of antarctic forests; (8) Paraguayan formation, and (9) Mesopotamian formation.

† A Naturalist's Voyage Around the World, by Charles Darwin, M. A., page 210, *et seq.*

by a band of peat with minute alpine plants, and this again is succeeded by the line of perpetual snow, which, in the Straits of Magellan, descends to between 3,000 and 4,000 feet. There is but little level land, and where this happens to be the case, the surface is in many places a mere bed of swampy peat. Indeed, even within the forest, the ground is concealed by a mass of slowly putrefying vegetable matter, which, being soaked with water, yields to the foot.* On the eastern side, however, there are some open meadows fit for pasturage or cultivation.

FORESTS NORTH OF THE STRAITS OF MAGELLAN.

These magnificent forests extend northward from the Straits of Magellan along the Andes on both slopes to about 34° of south latitude. In fact it is not yet known definitely where they do terminate on the eastern or Patagonian slopes. Besides the almost impenetrable forests of beech trees, there is a thick underwood, consisting of a species of *Berberis* and other antarctic species, and the same thick layer of turf, which is so universal in Terra del Fuego. Indeed, excepting the timber and the turf, the vegetable kingdom produces here no useful objects whatever. Nevertheless, in the hands of an energetic and laborious people, these forests of beeches could be exploited and made a source of untold wealth; but civilization has not yet penetrated these primitive regions.

EASTERN SLOPES OF THE SOUTHERN ANDES.

Further north, along these eastern slopes of the Cordilleras, in the neighborhood of the sources of the Rio Negro, there are forests of stately pines and wild apple trees, and it is here that the Patagonian Indians have their permanent settlement, in the midst of wide, open plains extending out from the sierras, well watered and clothed in most luxuriant grasses. Capt. Musters, who penetrated these forests in 1869, speaks of them as "uniformly dense;" the trunks of the pine trees reaching a height of 60 to 100 feet, and entirely bare of branches for two-thirds of their height.† His descriptions, however, of the woods and rivers are too superficial to give us a clear idea of the flora of these regions. The Argentine Government is now exploring all the country along the eastern slopes of the Andes, with a view to opening it up to settlement and improvement. A report on the vegetation is now in press and will soon be issued.

*Prof. Darwin describes an ascent he made of one of the mountains of this country, from which I take the following: "I was anxious to reach the summit of Bank's Mountain to collect alpine plants, for flowers in the lower part are few in number. We followed a water course till it dwindled away, and we were then compelled to crawl blindly among the trees. These, from the effects of the elevation and of the impetuous winds, were low, thick, and crooked. At length we reached that which from a distance appeared like a carpet of fine green turf, but which to our vexation turned out to be a compact mass of little beech trees about 4 or 5 feet high. They were as thick together as box in the border of a garden, and we were obliged to struggle over the flat but treacherous surface. After a little more trouble we gained the peat and then the bare slate rock. We obtained a wide view over the surrounding country; to the north a swampy moorland extended, but to the south we had a scene of savage magnificence well becoming Terra del Fuego. There was a degree of mysterious grandeur in mountain behind mountain, with the deep, intervening valleys, all covered with one thick mass of forest. The atmosphere, likewise, in this climate, where gale succeeds gale, with hail, rain, and sleet, seems blacker than anywhere else. In the Straits of Magellan, looking due southward from Port Famine, the distant channels between the mountains appeared from their gloominess to lead beyond the confines of the earth."

†See *At Home with the Patagonians*, by C. G. Musters, pages 113 to 160.

FORESTS OF THE CORDILLERAS OF PATAGONIA.

The line which separates the plains of Patagonia from this fertile mountain region, with its wealth of timber, is very sharply defined. Beginning at Cape Negro, Magellan Straits, at latitude 53° south and longitude $75^{\circ} 50'$ west, it runs west-north-west to the northeast extremity of Otway Water, following the channel of Fitzroy Passage and the northern shores of Skynning Water to longitude 72° , and then extends along eastern shores of Desolation Sound and Kirke Water; running thence due northward towards Lake Viedora, Lake Argentina, and Lake St. Martin, which are, respectively, the sources of the rivers Santa Cruz, Sheuen, and Chicos, which traverse the territory of Patagonia and empty into the Atlantic Ocean. Beyond these it continues northward to the sources of the Rio Negro, which waters, with its numerous branches and affluents, a large territory stretching along the base of the Cordilleras towards the province of Mendoza. Señor Morena,* who has explored the Rio Santa Cruz to its head waters, speaks generally of the "immense virgin forests" which he found at the base of the mountains. But the entire region of Patagonia eastward of these timbered districts is a succession of sterile plains, which rise from the coast, one above the other, like terraces,† uniformly about 300 feet high, and are traversed occasionally by ravines and flat-bottom depressions, some of which contain salt lakes. These wastes stretch away in dreary uniformity without a break to the far horizon, presenting a barren landscape so grim and so monotonous as to fill the traveler with a feeling of awe. The formation of the land is tertiary, resting on porphyry and quartz, ridges of which often protrude through the surface. In some parts they are capped by layers of lava. The soil is sandy and covered with water-worn stones, with here and there an isolated tuft of grass, withered and gray, whilst a peculiar gloom is further added to the melancholy of the scene by the somber hue of a straggling, stunted bush, the *jume* (*Salicornia*), which grows in considerable quantities, and which is described as a fit offspring, in its blackness and ugliness, of such uncongenial soil.‡ Further than this, if we except the *calafaté* (*Berberis axifolia*), also a miserable thorny shrub, which, however, would anywhere else be admirably adapted for live fencing, there is nothing on these arid plains which can be called timber, though in the valleys of the rivers, especially those emptying into the ocean north of 40° of latitude, there is a species of willow (*Salix humboldtiana*) which grows to very large proportions, and, in the absence of anything better, is used for building puposes.

THE TREELESS REGIONS OF THE PAMPA.

The river Colorado, which empties into the Atlantic Ocean in latitude 39° , is the northern boundary of Patagonia, on the north side of which begin what are known as the Argentine pampas,§ the soil of which is a complete contrast to that of the former region. They occupy the entire area of the province of Buenos Ayres and extend into those of Santa Fe, Cordova, San Luis, and Mendoza. They seem to be uniformly level, but these boundless plains rise gently in every direction from the sea, at first at the rate of about one foot per mile, and then more, until the large plateaux near the Cordilleras attain an elevation of 2,000 feet above the level of the sea, and ultimately terminate in the high parks of the Andes. The character of the

* *Viaje á la Patagonia Austral, 1876-'77, por Francisco P. Morena, p. 460.*

† Darwin accounts for the regularity with which these plains rise one above the other by the supposition that the land has been raised in a mass from under the sea, the upheaving movement having been interrupted by at least eight long periods of rest, during which the sea ate deeply back into the land, forming, at successive levels long lines of escarpments, which separate the different plains.

‡ "Wanderings in Patagonia," by Julius Beerbohm, 1876, pp. 22 and 105.

§ In the language of Quichee Indians "pampas" means level.

soil corresponds to the inclination, as though the continent had been formed by some great flow of waters depositing bowlders and rocks near the mountains, then districts of pebbles and water-worn stones, then coarse gravels and sands, and lastly the finer sands and clayey deposits which cover the great alluvial plains, and which are evidently the *débris* of the crystalline rocks of the mighty range of the Andes leveled and sorted by the action of water. The surface of all this vast area is covered by the richest of succulent grasses, but normally it is without a tree or a ligneous plant. It is a magnificent pasture ground, but its flora is poor and monotonous. It is remarkable that a soil on which timber grows so luxuriantly when planted should from time immemorial be so totally destitute of forests. The only exception is that in the sierras of Tandil, 200 miles south of Buenos Ayres, there is a region of dense brushwood called *carmamoel* (*Colletia cruciata*), which grows about the height of a man, and which has no leaves, but is covered with sharp thorns in the shape of a cross. And another exception consists in a strip of woods which extends from the latitude of Buenos Ayers down along the Atlantic coast composed principally of good-sized trees of the *tala coronillo* and *espinillo*, which are used for various economical purposes. As a proof that the soil of the pampas is perfectly adapted to arboreous vegetation, I would mention that in various parts there are now extensive belts of cultivated timber, among which is the peach tree, which produces both fruit and fuel; also several species of the *Eucalyptus*, the *Robinia*, the Paradise tree, and the Lombardy poplar, all of which grow with facility and rapidly, and are used not only for shade but for many economical purposes. There is one tree indigenous to the pampas which I should mention from its singular character. I refer to *omber* (*Percunia divica*). At a distance it is one of the most attractive objects. It grows to immense proportions, with gnarled roots and knots projecting up and around the trunk in all manner of fantastic shapes, and affords a wide-spreading shade of dark velvety leaves, a most refreshing resort for the *siesta* of a weary traveler; but for the rest it is utterly worthless. Its wood is really not ligneous, having neither fiber nor consistency, and resembling punk or a sponge more than anything else. These trees, if trees they may be called, do not grow in forests, but only singly and isolated, here and there at long intervals, being landmarks on the far horizon—sentinels, as it were, of the pampa.

THE TREES OF THE EASTERN SLOPES OF THE ARGENTINE ANDES.

Where the pampas approach the western mountains, all along the outlying slopes of the Cordilleras of the Andes, but distinct and isolated from them, and extending northward to the confines of Bolivia, there is a formation partly composed of open forests and partly of shrubs and ligneous plants, which the scientists have designated by the name of the Monté formation. It embraces a great part of the western slopes of the seven Andine provinces, to wit, Mendoza, San Luis, San Juan, Rioja, Catamarca, Jujuy, and Salta. Prof. Groesback, in his celebrated work, the "Vegetation of the Earth," calls it the "Chañar Steppe," from the arborets of that name which are so generally distributed through it. The trees which constitute this formation consist principally of species of *prosopis*, *mimosa*, and *acacia*. They are at first found in rather diminutive forms, and bristle with scattered branches provided with thorns or thorny leaves, but as you reach the higher elevations, where the "Puna formation" proper is found, the extended plains and broad valleys are thickly wooded with immense specimens of the same type of trees, growing far up on the mountain sides. In some parts, and especially in the sierras of San Luis and Cordova, these forests are so beautiful and picturesque in their arrangement that they look like artificial parks.

Among the most noted of the trees which characterize these everchanging landscapes is the *algarrobo* (*Prosopis alba*), specific gravity 0.740. The size of this species varies, according to locality, from mere bushes to quite lofty trees, branching, however, at a short distance above the ground, with thin tops of feathered leaves.

While the timber is much esteemed for construction, its fruit, which is a pod of sweet pulp, is an excellent food for cattle. The natives also make a species of bread out of it called *patao*, and also extract a liquor from it which when new is quite refreshing, but after fermentation is very intoxicating, and hence is a favorite beverage at some of their social meetings.

The *nandubay* (*Acacia cavernia*) is a small tree, whose hard and heavy wood make it much sought after for fence and telegraph posts. It is said to be almost indestructible, neither air, water, nor earth having any effect upon it. It produces a fruit which contains a great deal of tannin, and is also employed as a black dye. Specific gravity, 1.100 to 1.221.

The *Acacia moliniformis* bears a fruit also much sought after by cattle, though most of the species are characterized by such enormous thorns that in some parts the woods are almost impenetrable. I would add that a gum exudes from these trees which I believe could be made into gutta percha if the proper processes were employed.

Another very important tree found in this formation is the *quebracho*, the most frequent variety of which in these forests is the white (*aspidosperma quebracho*). It is of middle size, with oblong, thorny leaves. It forms great forests in some districts, and its timber is very useful for various purposes, and latterly has been applied in the xylographic art. It takes an exquisite polish. Specific gravity, 0.880.

The *moyes* or *molles* is also a valuable evergreen tree and exceedingly beautiful in its appearance. One species produces a fruit from which is prepared a sweet, aromatic, refreshing liquor; another variety bears a berry from which incense is manufactured, and still another is used for tanning purposes, while a fourth variety (*alvarillo del campo*) is noted for its savory and refreshing fruits, which are very similar to plums, and only the more agreeable because they contain a certain after-taste of bitter almonds. Specific gravity, 0.520.

The *chañar* (*Gurliaca decorticans*) is found everywhere throughout the submountainous regions, and its wood is much appreciated on account of its firmness and durability. It produces a sweet and savory fruit, and has the peculiarity of annually renewing its bark. Near the tropics it attains large proportions, though its trunk is irregular. Specific gravity, 0.568.

GIANT CACTI FORESTS.

There are many other trees in this formation, but they are small and have no value for timber purposes; and also a great variety of shrubs and brushes, to say nothing of vines, parasites, epiphytes, airplants, etc., though they do not come within the scope of this sketch. I must, however, refer to the family of the *cactææ*, which are as strange in form as abundant in distribution. They attain to immense proportions, some of them reaching a height of 40 feet, with trunks in proportion, and their wood is used in different industries and also in the mines. In a late visit to the northern provinces I passed through a forest of these gigantic cacti. It was one of the strangest and most weird sights that can well be imagined. They stood in groups. Here they frowned upon us spherical and spirated with formidable thorns nearly a foot long, and yet from their grooved sides radiating most delicate flowers; there they rose in tall fluted columns like ancient ruins, or with their long-jointed arms in menacing attitude, looked like giant witches beckoning you to stop; and yonder through the vista they were trailing like huge serpents over fallen trees or coiling in the crevices of the outcropping rocks. The largest species is the *cereus*, the flowers of which are white; those of the *opuncie* are orange color or yellowish red, while the serpent-formed *cactææ* have lively red flowers. One species produces the *tunas* or "figs of Algiers," some breed the cochineal insects, the cultivation of which is now carried on to some extent in Tucuman, and which, if proper methods were adopted, could be made of great importance to the country. At present the

natives gather the eggs of the insects and make them into dry compressed balls or cakes, weighing about a half pound each, which they sell for \$1 apiece for commercial purposes.

THE GREAT SUBTROPICAL FORESTS.

We now approach what is designated by Moussy as the "tropical" and by Prof. Lorentz as the "subtropical" forests. This formation is the garden of the Argentine Republic, and presents to us landscapes of such magnificence and fertility that we seem to be wandering in an enchanted wilderness. It exists in the high table-lands on the eastern ranges of the Cordilleras and their branches, whose waters are drained by a thousand streams and water courses towards the Parana and its great affluents. These plains and watersheds are all adorned with the rankest of tropical forests, which pass to the northward beyond the confines of the provinces of Salta and Jujuy into the territory of Bolivia, thus reaching to the latitude of 21° south.* Nearly all the varieties of trees which characterize the preceding formations are here found in more accentuated proportions, while it is rich with the magnificence of a hundred additional species, many of them so covered with *epiphytes* and airplants that it is sometimes difficult to discover the verdure of the tree to which they are attached; and both trees and plants producing flowers of many brilliant colors. Gigantic *liana* twine around the trunks and drop their air-roots to the ground, while their branches reach out and involve the branches of other trees in the vegetable mesh. Sometimes trees are seen growing upon other trees, their roots buried in the dust, which through centuries has been accumulating at the foot of the branches. On one occasion, in climbing to the heights of the Sierra Aconquija, in the vicinity of Tucuman, I undertook to penetrate this wealth of vegetation which fairly filled the gorges leading to the table-lands above, and where for ages the sunlight has been shut out from the earth by leagues upon leagues of arboreal giants; but the wild and tangled mass of undergrowth disputed every foot of approach, and I had to relinquish the attempt.

It seems almost impossible to exaggerate the wealth of timber which is found in these high latitudes. There is hardly a tree but possesses some special value for particular purposes. There is in the University of Cordova a very rich display of many of the varieties, being sections taken from the trunks and polished. They uniformly exhibit an exceedingly fine grain, embracing every shade of color, from the richest rose to the deepest green, from the darkest ebony to the lightest cream, some with most exquisite veins and others with manifold variegated hues. In any other country than this they would be esteemed as precious woods, equaling and rivaling those of Central America or Brazil, but they are at present so remote from market that for commercial purposes many of them are yet almost valueless. I

*On crossing the Rio de las Piedras, a river of the province of Salta, we entered at once the territory of Oran, the extreme northern limit of the Republic, which lies just above the tropic of Capricorn; our path still lying through dense forests, whose stems were frequently rendered completely invisible by reason of the close clasp of the thick and tangled mass of creepers which, in full flower, not alone from summit to base, but roofing the lofty vault with superb campanulate rounded heaps of blue, white, violet, and rose, emitted overpowering but delicious perfumes. * * * Our course was soon arrested by another river, the Santa Maria, and on reaching its further bank we entered the densest forest I ever saw; not the cathedral-like columnar-stemmed trees, rising 70 or 80 feet without a limb, and then surmounted by a branched, leafy, floral dome, such as I had seen in other parts of the country, but an impenetrable mass of entwined, gnarled, fantastic plant development, confusing trunks, branches, foliage, and flowers in one inextricable melange from top to bottom. Two growths contributed to this effect; one superior, of massive size and impending, the other inferior and consisting principally of wild orange groves, etc.—(White's Note Book of a Naturalist, vol. XI, p. 307.)

could hardly undertake, within the limits of a sketch like this, to give a detailed description of all the trees composing the magnificent forests of the province of Tucuman and the valleys of Salta and Oran, so admirably fitted, as they are, for the purposes of the engineer, the builder, the cabinetmaker, the shipwright, the tanner, and the dyer. I can only assume to mention a few of the most important, so far as Prof. Lorentz and others have identified them; though in some instances the scientific names may not be entirely reliable, since in the different parts of the country the same popular name is given to trees which differ very materially and sometimes have nothing in common save the indigenous name. Besides those which I have already referred to as especially characterizing other portions of the Republic, but which are also found in this zone, I would mention the following as the most common and most magnificent:

The laurel (*Nectandra porphyria*), which is a very beautiful tree, with a huge trunk and a dense crown of pinnated leaves, growing to the height of 60 or 70 feet.* There are several species, all of which are abundant and valuable, especially for cabinetwork, and one of which contains camphor in its leaves; it rivals ebony in color and polish. Specific gravity, 0.580 to 0.845.

The *tipa* (*Macharium fertile*), also possessing a splendid form and rising to the height of 150 feet, with a straight trunk, which branches about 70 feet from the ground. In the spring it is covered with papilionaceous flowers, producing a beautiful effect from a distance; easily worked; used for railway plant. Specific gravity, 0.660.

The *nogal* (*Fulgans nigra*), very similar to the European walnut, and producing an edible fruit, and, on account of the ease with which it can be worked and the fine lustrous polish it takes, it is much used in cabinetwork. Specific gravity, 0.538.

The *ramos*, two varieties (*Cupania uruguensis* and *C. vernalis*), greatly resembling the nogal in appearance and uses, but very hard, indeed almost impermeable. Specific gravity, 0.576.

The *cedro* (*Cedrela braziliensis*). There are several varieties, all producing a most beautiful wood, soft and easily worked, and therefore in great demand, being used for furniture, and resembling mahogany in its polish and the rich veins which it possesses. Specific gravity, 0.480 to 0.740.

The *mato* (*Eugenia mato* and *E. uniflora*), two magnificent species of the *Myrtaceæ*, with myrtiform leaves and edible fruit of the size of a cherry. The wood is rich in its colors and is used in decorative carpentry. Being tough and flexible, it is also much used for poles to carriages. Specific gravity, 0.890.

The *palo de San Antonio* (*Myrcine floribunda*), a tree of majestic proportions in the primitive forests, and producing excellent building timber. Specific gravity, 0.695.

The *lanza* (*Myrcene marginata*), also a very majestic tree, and takes a beautiful polish, thus making it desirable for furniture. Specific gravity, 0.738.

The *lapacho* (*L. bignonacæ*), belonging to the genus *Tecoma*, a tree of great dimensions and very beautiful. It would be almost impossible for the vegetable kingdom to present a more imposing spectacle than these gigantic trees when their branches, dark and leafless during the winter, are covered in the spring with millions of yellow or rose-colored flowers, which precede the sprouting of the leaves. The wood is of a green color, hard, heavy, and solid, and susceptible of a very fine polish. It

*Mr. White, in his Notes of a Naturalist, says: "Throughout the forests of Tucuman the laurel is everywhere found, sometimes forming extensive forests, in whose recesses numerous freebooters found, of yore, shelter and safe concealment. Imagine gigantic trunks, some 9 feet in diameter, jostling one against the other and rising perpendicularly 70 feet, crowned with an ample and elegant nimbus. Beyond the mere grandeur and poetry of the scene, the centuries that these patriarchs have scored their bark, what an inexhaustible commercial and medicinal wealth for future ages!" Vol. XI, p. 139.

is greatly appreciated in all kinds of constructions. It has the property of becoming petrified upon exposure to the air, sand, or water.

The bark possesses coloring material, and several different dyes are made from it. Specific gravity, 1.072.

The *palo borracho* (*Chorisia insignes*), a very singular tree,* with a swollen, oval-shaped trunk, covered with blunt, quadrangular thorns, digitated leaves, large white flowers, and the fruit full of a species of white cotton of little coherent fibers, used for making cloth, lampwick, etc. The form of this tree is one of the most singular to be seen in the country.

The *urundey*, a species of *bignoniaceæ*, a very abundant tree, and produces a most excellent wood. It is imperishable, polishes exquisitely, and makes beautiful furniture. There are two kinds: the black with white veins, and the white with jasper, black, and yellow veins; thus producing a very unique veneering. The wood is used for joists, pillars, columns, and ship-timbers, and is the best timber known for railway ties and sleepers; also excellent for axletrees on account of its resistance and inflexibility. The tree reaches the height of 100 feet and a diameter of 8 feet. Its leaves are lanceolated, and its bark, which is not very thick, is preferred for tanning hides. Owing to the difficulty of transporting them, the lumbermen do not fell the largest trees. Specific gravity, 1.092.

Palo blanco, a large tree whose wood is of a straw color, whereas the bark is whitish. In spite of its great height and circumference large timber cannot be procured from it, for the reason that the trunk is deeply fluted, having somewhat the appearance of a Corinthian column. Its wood is very highly grained, and resists friction with such persistence that it is considered the very best material for ship-blocks. The wood is aromatic and similar to mahogany in its color and quality. Specific gravity, 1.010.

The *titané*, of which there are two varieties, the white and the yellow; much used in the construction of fine furniture. The bark possesses a piquant juice. The tree attains to the height of about 50 feet and is about 1 to 3 feet in diameter. The wood, which polishes beautifully, has the advantage that it neither swells nor shrinks according to the state of the temperature. Specific gravity, 0.650.

The *cibil* (*Pipildæmia cibil*). There are several varieties of these acacias, the white, the red, etc., all of which, though found elsewhere, reach to large proportions in the subtropical forests, attaining a height of 40 feet and a diameter of 2 feet. The bark is rich in tannin and is in great demand for that purpose. The wood is very hard and takes a lustrous polish. Specific gravity, 0.854 to 0.956.

The *espinillo* (*Acacia cavenia*), a different tree from the shrub of the south, but a

* Proceeding over some low hills, a very peculiar looking tree presented itself, which the natives call *palo borracho* (drunken tree), but the Indians call *yuchen*, standing about 50 feet high and spreading from the crown branches covered with digitated leaves, dotted here and there with large white flowers whose naked stems before branching expand into one immense egg-shaped form fully 20 feet in height and 24 feet in circumference, sounding hollow when struck, and whose bark is covered with hard, short, quadrangular, blunt spines. The specimen I here saw was certainly full grown, and this remarkable tree is only found on elevated, rocky ground. The inhabitants of this province (Catamarca) and Santiago, scoop out the spongy center and use the hollow barrel-like stem as a storehouse, whilst in some parts of South America the stems are cut in half, and form capacious Dutch-like canoes. The seed-pods, likewise of egg shape, and about the size of the human fist, contain abundance of cottony fibrous down, from which are manufactured cloth, candlewick, and pillows, which latter, besides being delicately soft and springy, have proved beneficial to consumptive patients. When they get matted, exposure to the sun soon renders them once more puffy and elastic. (Cameos from the Silver Land, by Ernest William White, F. Z. S. London, 1882.)

magnificent variety of the family of *Leguminosæ*, having no thorns and producing an excellent wood for various purposes. Specific gravity, 0.766.

The *mora*, a very large tree, with heavy yellow wood, which grains beautifully, and on being worked takes the color of the richest mahogany, and is greatly used for the manufacture of the best furniture. The tree produces an edible fruit. Specific gravity, 0.935 to 1.090.

The *quebracho colorado* (*Loxopterygium lorentzii*). Quite a different tree from the *Q. blanco* found elsewhere. It is very abundant throughout the northern portions of the Argentine Republic. The wood is a deep red, and remarkable for its extreme hardness and weight. It is almost indestructible. Since the discovery of the country it has never been found rotten or decayed, no matter in what position, in air, earth, or water, it might be placed. It forms a most important article of commerce, and, owing to the immense size to which it grows, upwards of 200 feet with 10 feet of diameter, is used for ship-timber, beams, spiles, joists, bridges, etc., and makes most enduring railway sleepers and ties. It also takes an exceedingly fine finish, and is greatly in demand in carpentry work for doors, window-frames, cabinets, etc., the luster being equal to that of rosewood. In wood engraving it takes the place of boxwood. Specific gravity, 1.234 to 1.392.

There are many other valuable trees of the largest size found in this part of the country, among them the *quina-quina*, which produces an aromatic resin, and whose bark is used as a fever antidote and tonic; the *cascaion*, with a red and lustrous bark; the *palo mortero*, very similar to the tipa already described; the *pacay*, the *singuillo*, the *mayana itara*, and others not yet classified, all of which furnish most valuable timber, each one with some certain quality for certain uses, such as building, turning, furniture, cabinet-work, etc., but I have no descriptions of them. In the subtropical forests, which we are considering, there are also numerous smaller trees, nearly all of them hard wood, bearing a rich foliage and exceedingly ornamental; also a great variety of arborets, bushes, climbing plants, etc., many of them exquisite coloring in their leaves and flowers, but it hardly comes within the object of this sketch to mention them.

In the mountains of the Andes, beyond the chain of the Aconquija, and on the slopes of the Cordilleras proper, is found in extensive forests the pine tree (*Podocarpus augustifolia*). It is of medium height and of compact crown, but it is not similar to the European pine. The inhabitants utilize the timber, but there is no demand for it, on account of its inaccessibility to the market, and it is at present of but little importance in the economy of the country.

TIMBER RESOURCES OF THE GRAN CHACO.

Along the eastern borders of the subtropical regions whose forests I have been describing, lies an immense territory, in some parts reported to be arid and waste for want of water, but in others filled with a succession of rivers, and in time destined to be one of the most valuable portions of the Argentine Republic. It is called the "Gran Chaco." It extends from the Paraná to Bolivia, and is separated on the east from Paraguay by the river of the same name. The last Argentine census gave it a superficial area of 621,000 square kilometers, but as its limits have not yet been fixed with the neighboring provinces, its real area can not yet be determined. It is divided by the river Vermejo into two almost equal parts, one called the "Chaco Austral" and the other "Chaco Boreal," the last extending to latitude 20° south, and bounded on the north by the Bolivian province of Chiquitos. The "Chaco Boreal" is composed of an uninterrupted plain elevated about 400 feet above the level of the sea, with a heavy soil of humus, and is divided into the most beautiful forests with intervening meadows as if made on purpose for the raising of cattle. The Austral or Southern Chaco lies between the Vermejo on the north, the Paraná on the east, and the province of Santa Fé on the south. It is also completely level and is richly endowed by nature, not only with a deep soil but with most magnificent

forests. As yet these vast regions are almost exclusively occupied by wild Indians. A large portion has never been explored, and hence but little is yet known of the interior with its treasures of vegetable wealth. Only where it skirts along the Paraná and Paraguay rivers, with here and there a small clearing and settlement, the nucleus of a number of agricultural colonies, has anything been scientifically determined in reference to its timber resources. As far, however, as its fastnesses with their succession of small rivers and watercourses have been penetrated they are found to be covered with the densest forests of lofty trees descending down to the river line. The growth may not be quite so noble and sky-piercing as that which is found in the forests of Tucuman and Oran, but it embraces, so far as is now known, quite the same varieties and an equal abundance. And the region possesses this immense advantage, that by means of the great watercourses flowing along its eastern borders and the smaller streams, including the Vermejo and Pilcomayo, which penetrate its interior and which are found to be navigable for many hundreds of miles, all its vast wealth of precious woods and valuable timber is rendered accessible not only to Buenos Ayres, but, as ocean ships can load along its banks, also to the markets of the world, without the necessity of transshipment. As I have said, the more elevated portions of the Chaco present a landscape like a park where clumps of woods alternate with open meadows. The lower parts are covered with continuous forests and an undergrowth which in some places is so dense as to make it impossible to penetrate into the interior. But the woodchoppers are at work, and the quantities of all kinds of precious woods which are shipped down the rivers are becoming greater and greater every year. As yet the greatest demand in this market is for the *quebracho* of both varieties, which finds a use in almost every kind of construction. The *algorrobo* is also in great request, as likewise the *nandubay*, immense quantities of the posts of which tree are used for wire-fencing on the Pampas. Besides what comes to Buenos Ayres, however, there are ship loads after ship loads, which are exported directly to Germany and France, and there made into the most costly articles of furniture, or sawed up into veneering which rivals anything which comes from Brazil or Central America. I have said that nearly all the varieties of trees which I have heretofore described as belonging to the subtropical forests are also to be found in the Chaco. There are also numberless varieties which seem to be especially indigenous to that region. Among these are the following:

The *blanco grande*, a beautiful tree which grows to the height of 25 feet and is 18 inches in diameter. Its wood possesses a very fine fiber, and is used for mechanical moldings, and also for cabinet work. Specific gravity, 0.720.

The *carandá*. It belongs to the family of the *algorrobos*. It grows to the height of 30 to 40 feet, with a trunk of 18 inches in diameter. The color of its wood is violet, very solid, and of an excellent grain, and valuable for furniture and cabinet work. Specific gravity, 1.197.

The *carapay* (*Acacia altramantaria*), a large and beautiful tree. The bark is used for tanning hides and is an important article of commerce. The wood is red, with black veins, which polishes exquisitely and is used for fine furniture, cabinet work, and veneering. The wood is very durable and is excellent for railway sleepers. Specific gravity, 0.977 to 1.180.

The *cuirú*, one of the tallest trees to be found in the Chaco. It attains a height of over 150 feet, with a diameter of not more than 4 feet. Excellent for masts, yard-arms, rafters, etc. Specific gravity, 0.580.

The *timbó*. This is also a large tree, having a height of 70 to 80 feet and a diameter of 3 to 3½ feet. It is a soft wood of about the consistency of pine, though in color it resembles cedar. It is greatly used and makes excellent flooring, weather boarding, etc., having the good quality of not warping, though flexible and light. Specific gravity, 0.425.

The *palma* (*Copernicia campestris*). Several varieties, and especially the black and the yellow palm, are found in the Chaco, where they occupy large tracts in forests

by themselves. They attain to a height of 30 to 40 feet, with a trunk of 1 to 2 feet. These varieties are also found in the province of Cordova. Fans are made of the leaves, and its fruit is very sweet and much sought after by animals as well as men. Sweetmeats are also made of the dried dates, from which likewise a species of rum is distilled. The timber is not worth much, except for corrals and other fencing. The effect produced by these immense forests of palm trees, with their trunks all bare and their round thick crowns, all exactly uniform, is very picturesque and inviting. Specific gravity, 0.960.

The *guayaivi*. This tree grows to the height of 30 to 40 feet, with a foot diameter. It produces a very white wood with a black heart, and owing to its strength is used for lance heads, oars, handles of tools, etc. Specific gravity, 0.907.

Besides these trees there are others equally well known, such as the *mora*, the *olmo* or elm, the *blanquillo*, the *ciñal*, the *peterébi*, but I have no description of them, and others still whose Indian names, much less their botanical, I am not able to give. Indeed, so little is yet known in regard to the forests of the Chaco, that Prof. Lorentz still calls it a *terra incognita*, so far as science is concerned. The number of smaller trees, arborets, shrubs, etc., which occupy that vast region have also yet to be studied, though there is one, called the *chaquar*, of the family of *Bromeliaceæ*, which is a characteristic plant of great utility to the Indians. They make ropes, house lines, and cloths of different kinds with its fiber, and especially shirts or *ponchos*, which serve as cuirasses, being impervious to arrows; also fishing nets, baskets, etc. They also eat its bulbs, and its fruit serves as a very piquant condiment. The *vinagrilla* is another shrub which produces a pod as acid as vinegar. The *pirchuna* is used for the manufacture of brooms. The *alamisca* bears a berry, which is said to possess the intensest bitter known. The *avarillo* produces a delicious almond.

FORESTS OF THE ARGENTINE MESOPOTAMIA.

We now come to the Argentine Mesopotamia, as all that tract of country is called which is embraced between the Uruguay and Paraná rivers, extending from the island of Martín García, opposite Buenos Ayres, northward to the borders of Brazil, a region of over 1,000 miles in length, and varying from 50 to 200 in breadth. It comprehends the provinces of Entre Rios and Corrientes, the territory of Misiones, and the Republic of Paraguay, as also the thousands of islands which dot the two great rivers named. The vegetation of the shores of the Uruguay in great part consists of forests composed of a palm tree called the *coco yatai*, also the *coco australis* and other species of the cocoa-nut tree, also a bamboo called *tacuará*, and the *inga*, a very large tree of the *Mimosa* family, while farther up the river, approaching the "Misiones," are found the *urundey*, the *lapacho*, the *timbo*, etc., but they do not attain to a very massive growth until about the twenty-eighth degree, from which point northward the vegetation exhibits an extraordinary development, quite corresponding to that of Brazil. The shores and islands of the Paraná River, having a soil less argillaceous than those of the Uruguay, present a different arboreal growth. The delta of the Paraná abounds in willows, one variety of which, called the *sarandi*, is a very rapid grower, and is used for fire wood. There is also a most exuberant growth of wild peach trees and orange groves. The former is also used for fire wood, while the fruit finds a market in Buenos Ayres. The oranges of the littoral are rather sour, though they improve upon being transplanted. The bitter orange, which also grows here, is used for the manufacture of a favorite beverage. As we advance up the river the islands more and more exhibit the characteristics of the Chaco formation.

If now we penetrate into the interior of the Argentine Mesopotamia, we will find forests of the harder and more useful species, such as the *talas*, the *chañares*, the *algorrobos*, the *quebrachos*, the *vivaros*, the *naudubays*, etc., all of which varieties line the watercourses and fill the bottom lands of Entre Rios, and form to the northwest

the great forest of Montiel, which covers the sixth part of that province. The province of Corrientes is even more woody, and with a more tropical development, until we reach "Misiones" and the neighboring Republic of Paraguay, which offer a wealth of timber, rivaling anything that can be found even in the far-famed regions of Oran, not only in dimensions, but also in the fineness of the grain. Most of the varieties which compose the forests of the Gran Chaco are also indigenous to the "Misiones" and Paraguay, while there are a great number of new species, many of which having never been scientifically classified, still flourish under the names given them since time immemorial by the Guarané Indians.

During the recent Argentine National Exposition held in Buenos Ayres, there was on exhibition a most magnificent collection of the various woods which are found in the above regions, consisting of lateral sections of the trees, exquisitely polished so as to exhibit the grain and texture. The collection was credited to Paraguay, but it corresponds equally well to the upper portions of the province of Corrientes and the territory of Misiones, and as it embraces nearly or quite all of the valuable timber indigenous to those regions, I give the list complete according to the names by which the trees are locally known.

TREES OF THE MISIONES AND PARAGUAY.

1. *Sappy*, a large tree suitable for various uses.
2. *Ibyra-yu-quazú*, large and grows to a grand height with dense foliage; timber valuable for building purposes.
3. *Laurel amarillo*, the yellow laurel, also an immense tree, beautifully grained, and useful in all kinds of construction.
4. *Quebracho*, like that found in other subtropical regions, very hard and heavy and quite indestructible; serves for various purposes.
5. *Ibyrá-pitá*, a large tree with very hard wood, used in carpentry work.
6. *Cedro colorado*, the red cedar, a very light wood which is as soft as satin, employed in cabinetwork, and resembles mahogany in its beautiful veins.
7. *Timbó*, a large and bushy tree with white wood, very light, and the natives make canoes of it.
8. *Lapacho piruzú*, a variety which has exceedingly fine fibers, used for cabinetwork and other constructions of the first class.
9. *Lapacho*, the same valuable tree which has heretofore been referred to.
10. *Urundey-mi*, a tree of ordinary size, but much used for various purposes in carpentry work.
11. *Guayaybi*, a small, flexible tree, used for handles of tools and other things.
12. *Curupay-guazú*, a tree of grand proportions, used for the manufacture of furniture, owing to the fine polish it takes.
13. *Curupay-ran*, rather a small tree, used for cabinetwork.
14. *Urupiu pita*, fine grained, and used for the same purposes as the preceding.
15. *Yuqueri-busu*, an immense tree, used in heavy constructions and house-carpentry.
16. *Ibyra-poroté*, of ordinary size, but very fine grain, and useful for cabinetwork.
17. *Urupiu-mi*, a very large tree, whose timber is used for planking and furniture.
18. *Camba-acá*, a small tree with exceedingly hard wood; has various uses.
19. *Espina de corona*, an immense tree; wood very hard; in general use for heavy timbers, but takes a beautiful polish, and valuable for various purposes.
20. *Arrayan*, of ordinary size, used in decorative carpentry.
21. *Incienso*. This is the incense tree, so called from the pungent smell of the resin which exudes from it; a very large tree, used for cabinetwork.
22. *Guabirá*, a large tree which bears a delicious fruit; the timber used in carpentry work and for other purposes.
23. *Iba-hai*, a tree of rather large proportions, whose timber takes a fine polish and is useful in cabinetwork.
24. *Yatayrá*, large, but of little use.

25. *Caohoveti-glazú*, the same.
26. *Aguai*, a large tree which produces an excellent fruit and whose timber is employed for various purposes.
27. *Ibará-ró*. This tree likewise produces fruit and finds a general use for furniture and carpentry work.
28. *Granadilla quazú* bears a fruit, but its timber is little used.
29. *Tataré*, a tree of ordinary size; its bark is used for dyeing purposes and its timber for all kinds of carpentry work, having a beautiful grain which takes a fine polish.
30. *Corupicay*, large and resinous; makes beautiful furniture.
31. *Tembetary-negro*, a large tree with dark wood that is handsomely veined; used for furniture.
32. *Ingá-blanco*, also used for furniture.
33. *Petereby*, a large tree with wide-spreading branches, producing a heavy timber, which is used in constructions and building.
34. *Aratren-quazú*, ordinary size and bears a pleasant fruit; not much used.
35. *Ibirayú-quazú*, a very large tree, whose timbers are much used for heavy building purposes.
36. *Yagua-ratay*, of little use, though a hard, compact wood.
37. *Taperibá*, large and bushy, used also in heavy constructions.
38. *Ibira-pépé*, the same.
39. *Timbaly*, very straight and tall—wood white; used for beams, axle-trees, etc.
40. *Navanjo-agrio*. This is the bitter-orange tree; heavy, and used for cabinetwork.
41. *Tembetery-blanco*, large, with very light wood of a white color; not much used.
42. *Cupay*, very large proportions; the wood exceedingly fragrant, richly veined, and used for cabinetwork.
43. *Parapary*, large tree, producing a very fine-grained wood, which takes a beautiful polish; used in all kinds of carpentry work.
44. *Nandapá-mi*, very similar to the above.
45. *Guiray*, the same.
46. *Urundey-mi*, a very large tree, close-grained, which polishes well; used for cabinetwork and other purposes.
47. *Guiavi-saise*, a large tree, which works easily and is used for many purposes.
48. *Curupay-raú*, moderate size; wood used for cabinetwork.
49. *Ibyra-pita*, a very large tree, whose timber is valuable and used for building purposes.
50. *Ibirayu-grande*, grows to a great height, and is used for cabinetwork.
51. *Incierso-amarillo*, a tree of great proportions, which serves for the manufacture of furniture and railway carriages.
52. *Urundey-pará*, a large tree, greatly admired for the beautiful veins of its wood, used for fine cabinetwork and also for wood engraving on account of its hardness and fineness of grain.
53. *Taperiba-quazú*, a tree of immense proportions, and whose lumber is used for building and other purposes.
54. *Guayaybi-blanco*, not of very large size, but its wood is very flexible; useful in carpentry work.
55. *Ibyra-ró*, rather a large tree, in general use for various constructions.
56. *Laurel-negro*, also a large tree, whose timber is beautifully veined, the wood being almost black; used for fine cabinetwork.
57. *Tatané*, a large tree whose bark is used for coloring, and whose wood is much esteemed in carpentry work.
58. *Iba-poroiti*, a tree which bears a delicious fruit, and whose wood, very fine grained, is used for cabinetwork.
59. *Iba-hai*, very similar to the above; its wood is used for inlaid or mosaic work.
60. *Caahobety colorado*, very tall and slender, whose wood is used for beams, axle-trees, etc.

61. *Ibyra-hobi*, also a tall, slender tree, and used for like purposes as the preceding.
62. *Curupay-hu*, a large tree, whose timber is used for furniture and other things.
63. *Campeche*, of large size, and very dark-colored wood, which takes a fine polish, and is used for cabinet and other work.
64. *Palo de lanza*, of ordinary size, but possesses a very fine wood, and is used for finest cabinetwork.
65. *Palo-rosa-colorado*, the darkest colored rosewood; used for veneering and finest grades of furniture.
66. *Timbo-colorado*, a large tree, easily worked; wood used for making wagons and railway cars.
67. *Guayaibi-blanco*, a tree of ordinary size; used for furniture, etc.
68. *Guayacan*, rather a small tree, but its wood is extremely hard and used for many purposes.
69. *Tatayiba*, a very large tree with beautiful dark wood, which is used for furniture, cabinetwork, etc.
70. *Palo Tanto*, of ordinary size; used for various purposes.
71. *Iba pobo*, a large tree which is much used for elegant cabinetwork, owing to its beautiful veins.

The uncivilized names of the most of these trees may not be very attractive reading, but it is almost awe-inspiring to wander through the immense primeval forests in which these arboreal monarchs stand as solemn witnesses of the centuries which have passed since they began their growth.*

The valuable timber which they represent is almost too remote from market to be available yet; but one is impressed with the bountiful provision which nature has made for the future wants of mankind.

Those districts of the Misiones which border on the Upper Paraná river are, in some places, especially distinguished by extensive forests of *caoba*, the celebrated mahogany tree of commerce, as also the rosewood (*palo de rosa*), so generally used for veneering, though there are many other trees which take an equal polish and are fully as handsomely veined. There are two species of the rosewood tree, known in the country as the male and female. The wood of the first is the hardest and most difficult to polish, and has no veins; while that of the other is much softer, is of rather a more pronounced red color, with very dark veins, and furnishes to the cabinetmaker a most esteemed material. The tree is of great circumference, and its specific gravity is 0.700.

The cedar of the Misiones is principally found in that portion bordering on Corrientes. There are three varieties, distinguished from each other by color of the wood, but all equally adapted to the purposes of commerce. Specific gravity, 0.572.

The pine of the Misiones is generally found in immense forests by itself. It, however, like many of the other valuable woods of this region, hardly yet enters into commerce, notwithstanding the excellence of its timber, for the reason that more accessible forests offer other woods as an abundant compensation. Specific gravity, 0.410.

In the forests of Paraguay and Misiones is also to be seen the famous evergreen tree (*Ilex paraguayensis*), which produces the yerba-mate, the universal beverage of the natives, and the export duty on which, in great part, affords the national revenue of Paraguay, the Government having the exclusive monopoly of the trade.

* Speaking of the arborecence of the Misiones, Mr. White, in his Note-book of a Naturalist, says: "Although I had been accustomed to the vast and imposing forests of Salta, Jujuy, and especially Oran, this region struck me as even more luxuriant, not in such arboreal magnificence, but in universal density and impenetrability; indeed, the exuberance of timber is such that the very names of the trees are as yet unknown to Europeans, and even the majority of those with which they have become familiar are only recognized by their Indian vocables. (Vol. II, p. 421.)"

In these magnificent forests are also to be found orange and pineapple groves, as likewise almost every other variety of tree and shrub bearing the delicious fruits of the tropics. I am told that the orange is not indigenous to these regions, but was introduced shortly after the Spanish conquest by the Jesuits, who, until their expulsion by order of Philip II, occupied all this portion of the country. The tree is now, however, universally distributed. Some of the orange groves I have visited in the neighborhood of Villa Occidental, Gran Chaco, and near Asuncion, Paraguay, were indescribably beautiful, the enormous trees being bowed down by the weight of their delicious golden produce, while the ground beneath was covered with the fallen fruit. In the season the oranges are sent by boat-load to Buenos Ayres and Montevideo. They are also used for distillation and for feeding pigs and cattle, besides being largely consumed by the natives. Owing to the enormous quantities produced, they have, however, but little money value in Paraguay, and over in Buenos Ayres, a distance of over 1,000 miles, I have seen them sometimes sold for about 50 cents a bushel.

THE FUTURE OF THE TIMBER TRADE OF THE ARGENTINE REPUBLIC.

I have thus completed a cursory note, which I believe to be reliable, of the several arboreal formations into which the Argentine Republic, with its immense extent from north to south, is naturally divided, beginning with the antarctic forests of beech, which occupy the greater part of Terra del Fuego and the lands adjacent to the Straits of Magellan; noting the vast pñerías, as yet wholly undeveloped, which skirt the entire eastern slopes of the Patagonian Andes; following these to where the "Monte" formation marks the development of the hard woods; describing the principal trees of the great subtropical forests of Tucuman, Salta, and Oran; glancing at the wealth of timber which literally covers the immense unexplored regions of northern and southern "Chaco," and finally passing in review the marvelous variety of valuable woods which are found in the thousand miles of territory which lies between the Paraná and Uruguay rivers, called the Mesopotamia of the Argentine Republic. The sketch or compilation is not intended as exhaustive of the subject. It could be very greatly extended, though there are still vast outlying regions of forests about which little, if anything, is yet definitely known. The report, however, is sufficient to explode the generally prevailing idea that the Argentine Republic is entirely a pampa or prairie country and lacking in timber resources, an impression which has gained credence from the fact that the province of Buenos Ayres, which abroad is generally taken for the whole country, is to a great extent destitute of trees; and by the further fact, which seems to be an anomaly, that a very large part of the lumber used here is still imported from the United States.

In spite of this, however, as I have shown, the greater portion of all the northern and northwestern provinces is occupied by forests of timber, which not only in their enduring qualities but in their fineness of fiber, smoothness, and beauty of coloring will compare favorably with those of any country in the world. Indeed, in their susceptibility to the highest degrees of polish, and in the striking varieties and combinations of their tints, it is doubtful if any other country has woods that fully equal them. As I have said, the full extent of this arboreal wealth is not yet known, and we must still wait for a scientific description of a very large proportion of the country which contains these marvelous timber resources. It is evident, however, that in the more or less remote future, when the increasing population of the Argentine Republic has come face to face with these outlying virgin forests, and railways and a more extensive system of river navigation place a greater commercial value upon the work of the woodchopper and the lumberman, the markets of the world, which are just now beginning to realize the undeveloped wealth which these forests represent, will be astonished at the amount of precious woods and valuable timber, suitable for every variety of work, which this country will be able to supply. Europe is now driving the entering wedge in the mammoth timber trees

which skirt the shores of the Upper Paraná, and the ship-loads, which in the last few years have gone forward to the cabinet and fine-furniture manufactories of France and Germany, have so greatly exceeded the expectations as to their value as to make them more anxious for greater supplies. Indeed it will not be surprising if the tables will yet be turned, and even the United States, after having quite exhausted her own forests in supplying the foreign demand, will, in time, be compelled to look to the Argentine Republic for a considerable portion of its lumber.

E. L. BAKER,

Consul.

BUENOS AYRES, June 20, 1883.

BRAZIL.

RIO DE JANEIRO.

NATIVE WOODS.

The magnificence of the forests of Brazil and the variety of the woods they contain would demand a far more extensive treatment of the subject than is admissible in an essentially commercial report. In Amazonas alone, 30 kinds of timber for building and 13 for cabinet-making are said to exist, while the rest of this vast country presents an enormous variety of the most luxuriant trees, useful for their timber as well as for sundry other purposes. If they are not used as they merit it is owing to the scarcity of labor and the want of proper means of communication, making in the most cases the native dearer than the imported woods. I will therefore only mention those commonly employed for building and other uses.

The *peroba*, the *tupinhôa*, for naval construction; the *páo brazil* (Brazil wood), the *cabiuna* (brown rosewood), the *cedro* (cedar), the *massaranduba*, the *sapucaia*, and the laurel are much employed in the lining of vessels. The *páo d'oleo*, the *gonçalo alves*, the black and brown *canella*, the *licurana*, and the iron wood (*páo ferro*) are also used for ship construction.

The *peroba*, the *cedro*, the *vinhatico*, the *páo d'oleo*, the *jacaranda*, the *páo marfim* (ivory wood), the *páo setim* (satin wood), the ebony, the *licurana*, and the *ipé* are used in cabinet and joiner work.

KINDS OF LUMBER IN USE.

The kinds of lumber preferred are the American and Swedish pine and the native *canella* and *peroba* for construction, and the native *vinhatico jacaranda* for cabinet and joiner work.

IMPORTS AND DUTIES.

The imports of pine lumber at Rio de Janeiro were as follows during the years 1890, 1891, and 1892:

From—	1890.	1891.	1892.
	<i>Cub. meters.</i>	<i>Cub. meters.</i>	<i>Cub. meters.</i>
United States	43,783	70,035	42,870
Sweden	13,480	29,196	11,226
New Britain	2,832	4,200	5,142
Germany	1,296	4,401	.....
Great Britain	90	594	726
Portugal	12	6,384	3
France .....	.....	.....	9
Australia	6	.....	.....
Austria .....	.....	.....	3
Total	61,704	114,810	59,979

The quantities of beams, masts, etc., and cabinet woods imported are not available, but they are not large. The greater part of the beams and masts are imported from the United States and the cabinet woods from England and Germany.

The import duty laid upon foreign lumber is as follows:

Description.	Duties on—	
	American lumber.	All other lumber.
Beams, trunks, masts, spars, etc.:		
Oak and teak—	<i>Milreis.</i>	<i>Milreis.</i>
Up to 20 centimeters in thickness.....meter..	1.575	2.100
From 20 to 40 centimeters in thickness.....do..	3.600	4.800
From 40 to 60 centimeters in thickness.....do..	7.425	9.900
Above 60 centimeters in thickness.....do..	13.500	18.000
Pine and other unclassified woods—		
Up to 20 centimeters in thickness.....do..	.832	1.110
From 20 to 40 centimeters in thickness.....do..	1.800	2.400
From 40 to 60 centimeters in thickness.....do..	3.825	5.100
Above 60 centimeters in thickness.....do..	7.087	9.450
The thickness of the above woods, and the diameter of the trunks, masts, or spars is calculated according to the averages of their extremities.		
Boards and planks:		
Mahogany, and other cabinet—		
In planks.....kilo..	.113	.156
In thin slabs.....do..	.507	.675
Oak and teak.....cubic meter..	29.250	39.000
Pine and other, unclassified.....do..	10.575	14.100

Pieces of wood coming already cut, prepared, or adjusted for building houses or sheds, or for any other civil and naval purposes, pay from the United States 33 $\frac{3}{4}$ per cent, from other countries 45 per cent ad valorem; and any others from the United States 54 per cent, and from other countries 72 per cent ad valorem.

It is impossible to reduce the duty into United States currency owing to the rapid fluctuations in the value of the Brazil milreis.

PRICES.

The prices of lumber here, as elsewhere, are subject to the law of supply and demand and, it may be added in this case, to the fluctuations

in the value of the milreis. The market prices, duty paid, are to-day for pitch pine, 65 milreis per dozen planks, 14 feet by 9 by 3 inches. white pine, 205 reis * per foot; Swedish pine, 60 to 70 milreis per dozen planks, 14 feet by 9 by 3 inches. These prices are subject to 6 per cent discount. To-day's exchange $9\frac{3}{8}$ pence per milreis, or say $18\frac{3}{8}$ cents United States currency 90 days on London. The market is actually reported dull, with weak demand and the prices low. The stock of timber, paid for at more favorable rates of exchange, is large, and retailers only cover immediate wants in view of the possibility of an amelioration of exchange.

CLIMATE.

Brazil extends to the north beyond the equator and to the south still more beyond Capricorn, and its climate is naturally varied. Hot weather predominates, but is modified according to the different latitudes in which it makes itself felt, and is influenced by the position, but principally by the elevation, of the land. It is intense under the equator (on the Amazonas), much less severe in the states of the center, mitigated on the coast by regular breezes, and progressively reduced to a mild temperature in the most southern states, but specially in Rio Grande do Sul. There are two seasons in all that part of the country from Amazonas southward, inclusive of the state of Sao Paulo, the dry and the rainy, while in the states of Parana, Santa Catharina, and Rio Grande do Sul, four seasons are distinguished, but not so strongly characterized as in the United States. In Minas-Geraes, Matto-Grosso, and Goyaz, the climate differs according to the elevation and the latitude of the various parts of these immense states.

GENERAL BUILDING.

General building, it is feared, will not be carried on as extensively during the next few years as was the case since 1889. Ship building is of no special consequence in this country.

The length of railroads in construction, under study and to be studied, was January 1, 1892, in kilometers:

Roads.	In construction.	Under study.	To be studied.	Total.
Railroads—				
Belonging to the Union.....	964	595	485	2,044
Subsidized by the Union	2,048	5,965	12,337	20,350
Not subsidized by the Union	1,174	2,132	6,731	10,037
Total	4,186	8,692	19,553	32,431

* There are 1,000 reis in the milreis.

As will be observed by the statistical figures of the imports of Rio de Janeiro for the three years from January 1, 1890, to December 31, 1892, American lumber is taking the lead over all other foreign lumber; the only means to increase the lumber trade of the United States with this country would, therefore, be to equalize, as much as possible, ocean freight rates with the rates from European ports.

JOHN T. LEWIS,
Vice Consul-General.

RIO DE JANEIRO, *April 24, 1894.*

CHILE.

NATIVE WOODS.

The native woods of Chilè are rauli, roble, cypress, luma, lingue, laurel, alamo, and alerce.

The two most important and most used of these are rauli and roble; the first, resembling our cedar, is used mostly in the manufacture of furniture and also extensively in interior finish for buildings, it being susceptible to a high degree of polish, pliable, and easily worked by machinery.

The roble is the most plentiful of all the woods here, and corresponds to our oak, being, however, much finer grained, harder, and consequently offers more resistance to machinery. The specific gravity of this wood precludes the possibility of its being rafted, which necessitates handling by rail; this in a measure will always prevent its competing to any great extent with lumber imported from the United States, as the forest section is very mountainous and, consequently, it is difficult to get the logs to the mills and the lumber from the sawmills. This wood is better adapted to framework than any other purpose.

The one other wood worthy of mention is the cypress, which is well adapted to the manufacture of railway ties, and is principally used for that purpose, the supply, however, is small.

KINDS OF LUMBER MOST USED.

The kinds of lumber most used are Oregon pine and the native rauli and roble, the Oregon pine being most generally preferred.

IMPORTS.

The quantities of lumber imported during the last three years were as follows:

Kinds and whence imported.	1890.	1891.	1892.
Cabinet woods:			
Great Britain.....square feet..	2, 409	8, 000	220
Germany.....do.....	568		
France.....do.....			
United States.....do.....	2, 072, 648	46, 273	29, 526
Total do.....	2, 075, 625	54, 273	29, 746
Dressed and matched flooring, ceiling, etc.:			
Great Britain.....do.....	4, 449		993
Germany.....do.....			
France.....do.....			
United States.....do.....	488, 647	739, 876	1, 161, 831
Total do.....	493, 096	739, 876	1, 162, 824
Rough, for general construction:			
Great Britain.....do.....	2, 312	244, 948	75, 942
Germany.....do.....			
France.....do.....	22, 033		4, 467
United States.....do.....	5, 755, 217	3, 811, 010	9, 862, 555
Total do.....	5, 779, 562	4, 055, 958	9, 942, 964
Veneering:			
Great Britain.....kilograms.....	1, 748	3, 226	653
Germany.....do.....	5, 251	185	2, 438
France.....do.....	219		
United States.....do.....			1, 896
Total do.....	7, 218	4, 411	4, 987

DUTY.

The principal obstacle in the way of increasing our trade with Chile is the import duty, which is on rough lumber 15 per cent ad valorem; dressed and dressed and matched, 25 per cent; veneering, 35 per cent; and the fine woods for cabinetwork free. I may add that the present system of appraising makes the import duty on rough lumber \$10.47, and on dressed and dressed and matched \$19.46 per 1,000 feet, Chile paper currency (a dollar at the present rate of exchange being worth 25 cents United States gold).

PRICES.

The prices of lumber are as follows: Oregon pine, rough, \$110 per 1,000 feet; dressed and matched, \$130, and half-inch ceiling, \$80; roble, framing, \$70; and rauli dressed and matched, \$100.

It is probably safe to say that the American exporter will always find a market in Chile, as the forests, which cover an estimated area of 90,000 square miles, consist principally of roble, which, as I have previously mentioned, is not calculated to come in strong competition with American lumber.

The product of the sawmills in most instances is transported by carts to the railroads for shipment, and as the roads are very bad, lengths of roble longer than 24 feet are seldom sawed. As the rauli tree is a very short one, the lengths are never longer than 12 or 14 feet.

CLIMATE.

A description of the climate in this consular district would be valueless in this connection, as the lumber section begins at Malleco, about 400 miles south, and extends to the Straits of Magellan. The average rainfall there is 106 inches, and the climate cold and disagreeable eight months in the year, while here the rainfall is only 16 inches and the climate is mild, comparing favorably with that of Los Angeles, Cal.

GENERAL BUILDING.

Chilian cities—Santiago, Valparaiso, and Concepcion—are growing rapidly, especially the two former, which are in this consular district. The demand for lumber is brisk and daily increasing. There is no ship-building in Chile, and at present railway construction is at a standstill.

JAMES M. DOBBS,

Consul.

VALPARAISO, May 1, 1894.

COLOMBIA.

BARRANQUILLA.

NATIVE WOODS.

Colombia is a vast lumber producing country; in many portions of the interior huge forests, many hundreds of miles square, cover its face, representing woods of different values.

To name all the woods of Colombia would be to make an extensive catalogue. The principal, however, are cedar, guayacan, carreto, roble, campano, mahogany, ceiba, and brazil. They may be classified as follows:

Cedar.—This is the most common wood in use. It is easily worked, and possesses a bitter quality, which is a preventive against an insect called the *comejen*, a species of wood ant, very destructive to many other kinds of wood. In house construction, excepting for flooring beams, cedar is universally used.

Guayacan.—This is the *lignum vitæ*, and is very hard. It is used principally for railroad sleepers, and thousands are shipped to Cuba, to the Isthmus of Panama, and Central America. This wood resists the penetration of spikes, and holes have to be bored before they can be driven. It is of dark color, with occasional light streaks running through it.

Carreto.—This is a light-colored wood, also very hard, and is destructive to carpenters' tools. It is used in timbers for construction, the ends which enter the walls being usually charred or dipped in coal tar, as a

preventive against rot. Timber of Carreto will last for centuries. Being a handsome wood, capable of receiving a fine polish, it is used in furniture, such as presses, counters, trunks, and household objects.

Roble.—This is a softer wood, of light color, and very tough. It pertains to the family of the oak. It is used to a considerable extent in the manufacture of furniture.

Campano.—Trees of this wood grow to an immense size and height, and are hewn and dug out into canoes and boats of very considerable dimensions. A well-made native canoe, sometimes 90 feet in length, is really a work of art.

Mahogany.—This is a handsome wood of rich, dark color, but is inferior in grain to that of Santo Domingo or Honduras. It is not extensively used.

Ceiba.—This is a wood of rather a light rosy tint, and is used in the manufacture of household articles.

Brazil.—This tree grows in some parts of Columbia.

Fustic.—The common fustic of commerce grows extensively in the interior.

The working of timber into beams and boards by native workmen is usually accomplished with the old-fashioned cross-cut saw, and a species of uncouth pattern of the old Spanish ax.

KINDS OF LUMBER USED.

As to "what kind of lumber is preferred," that entirely depends on the use to which it is put; as cedar for house construction, carreto for timbering, and guayacan for sleepers.

IMPORTS AND DUTY.

No lumber is imported from any other country than the United States

Formerly quite a quantity of yellow pine was brought from some ports of the Southern States, in sailing vessels entering the river, but of late the very high rate of exchange (205 per cent premium), has nominally stopped importation. When timbers of great length are required yellow pine meets the want.

Undressed lumber pays no duty; dressed lumber (a board planed and tongued and grooved), pays $1\frac{1}{2}$ cents per kilo.

CLIMATE.

The climate of this consular district is delightful. During the October rain and December "northers," I have known the thermometer to go as low as 74° F., while during the warmer season, in the most favored part of this city—for instance where this consulate is located—I have never seen it rise above 88°.

GENERAL BUILDING AND PRICES.

There is neither shipbuilding nor railroad construction in this district. To-day rough lumber may be quoted at 18 cents per superficial foot; dressed lumber at 20 cents, Colombian paper.

The outlook is not favorable to an increased trade in foreign lumber.

E. P. PELLET,

Vice and Deputy Consul.

BARRANQUILLA, *April 25, 1894.*

COLON.

NATIVE WOODS.

There are no native woods here for building purposes, the villagers being the only ones who employ rough native sticks in the erection of their huts.

KINDS OF LUMBER USED.

The kinds of lumber used are yellow-pine scantlings and timbers and white-pine boards, planed or rough, in almost equal proportions.

A small quantity of California red pine is imported by the Panama Railroad Company, and used exclusively in the reconstruction of their cars.

IMPORTS OF LUMBER.

All the lumber used here is imported from the United States.

DUTY AND PRICES.

There is no import duty on lumber entered at this port.

The prices of lumber vary very much on account of the constant fluctuation of exchange. It is, however, safe to quote the following rates for the present in Colombian silver per 1,000 feet,* viz:

Yellow pine, \$70 to \$75 for average sizes; for heavy timbers special prices in proportion. White pine, \$70 to \$80.

CLIMATE.

The climate of this district from the middle of December to the middle of March is dry with prevailing north winds; the rest of the year it is rainy and damp.

* The Colombian silver peso = 46.5 cents on April 1, 1894.

GENERAL BUILDING.

At present there is very little house building going on, on account of the depressed state of affairs in general, and there is not now, nor has there ever been, any shipbuilding here.

The Panama Railroad Company has 47 miles of laid track between Panama and this city, but there is no railroad being built within this consular district.

J. L. PEARCY,
Consul.

COLON, *January 19, 1894.*

DUTCH GUIANA.

NATIVE WOODS.

The following are the principal woods of Dutch Guiana: Jawalidani, kakaralli, wallaba, blackheart, greenheart, accouribroad, purpleheart, ironwood, cabacalli, mimusops (balata), cedar, lancewood, simiri, mora, salic, deteruca, lignum-vitæ, and mahogany.

IMPORTS, DUTY AND PRICES.

The annual imports of lumber amount to about \$20,000, viz: From the United States, \$15,000; from British Guiana, \$5,000.

The duty on lumber is as follows: Pitch pine, 80 cents per cubic yard; white pine, 60 cents per cubic yard; planks, 24 feet or more, 60 cents per hundred; planks under 24 feet, 40 cents per hundred.

Present price of lumber: Pitch pine, \$48 per thousand; white pine, \$40 per thousand.

CLIMATE AND PUBLIC BUILDING.

The climate of Dutch Guiana is divided into three seasons, two wet and one dry. The "small" wet season commences in December and ends in April. The "great" wet season runs from April to July, and the dry season from July to December.

The thermometer averages about 83° F. The average annual rainfall is 95 inches. For the last ten years it has rained, on an average, on 204 days in each year.

There is neither shipbuilding nor railroad building in this colony.

H. LOVEJOY,
Vice-Consul.

PARAMARIBO, *February 23, 1894.*

ECUADOR.

NATIVE WOODS.

The following table exhibits a great variety of valuable woods found in Ecuador, in the province of Guayas alone, and particularly about Chougan, Balzar, Fama, and Puná.*

The table shows the local names, the color, length of log which may be cut from a tree, and the number of years each is calculated to endure.

Several of these woods are unique cabinet woods. I have indicated the general uses for which they may be severally employed, and in another place some further particulars about some of them.

As far as I can find out, there is no timber here like our pine which can be used to make the light planks in general use in house building, etc. Consequently, pine lumber is imported here from Mississippi, shipped from the port of Biloxi.

List of native woods.

Local names.	Color.	Size. ^a	Durability.
		<i>Fect.</i>	<i>Years.</i>
Fine cabinet woods:			
Roble	White	20	25
Figueroa	Red	20	25
Cabicu	do	30	100
Cedro	do	30	16
Guasango	do	10	Everlasting.
Caoba	do	25	16
Caracoli	White and yellow ..	25	12
Suche	Gold	25	12
Posts and underground woods:			
Guayacan	Coffee	30	50
Medera Negra	Black	50	50
Alganobo	Coffee	15	Everlasting.
Matasama	Yellow	20	50
House-construction woods:			
Moral	do	45	50
Armarillo	do	45	50
Guachapeli	Red	25	50
Laurel	Dark	25	50
Colorado	Red	55	14
Mangle	do	55	14
Bantano	Yellow	20	25
Cascol	White	20	30
Seca	Yellow	15	30
Pechiche	White	15	30
Ganyabo	do	30	30
Guion	Red	15	14
Coquinto	White	15	30
Canelo	Yellow	35	40
Balsamo	Red	45	50
Raft woods, Balsa.	White	60	4
Ship timber, Maria.	Yellow	65	30

^a Size is the length of a log which can be cut from a tree.

The foregoing woods are all found in the province of Guayas, in which Guayaquil is situated.

Of the woods in the provinces of Esmeraldas and Monchi, on the upper coast, and of those in the southern provinces of Del Oro and

* Consul-General Dillard acknowledges his indebtedness to Senor Don Ignacio Robbs for valuable statistics used in the preparation of this report.

Toja, I have no sufficient information (the woods named are most likely found in all those provinces), nor have I any information about the woods of the Cordilleras, nor of those in the regions known as the Arieute—the virgin forests of the upper Amazons.

Guayacan.—This valuable wood endures alike in the open air as under ground. On account of the frequency of earthquakes, most of the houses are built upon great posts, which are sunk deeply into the ground and are extended to the second story of the building. The bottom parts of these posts are of guayacan, which extend 4 or 5 feet above ground and the upper part of the posts are of mangle, which can be renewed when it decays. The two parts of the posts are attached together by a most ingenious mortise joint. The guayacan is used for all purposes where wood is used under ground or in water.

Mangle.—This wood is in universal use—for the upper part of posts and for all the joists, plates, and studding of houses. Its lasting quality differs with its situation. In the shade above ground it endures, say fourteen years, and in the ground, sixteen years, but in the open air, exposed to the sun, it lasts only three or four years.

Balsa.—The renowned balsas (or rafts) (the most unique water craft in the world) are constructed of this wood, hence its name. This craft (made of balsa logs, stripped of the bark and fastened together with vines) has always been in use by the Indians on this coast. The tradition is that the progenitors of the Indians, who inhabited this country before the Incas appeared, as well as at the time of the Spanish conquest, reached the shores of Ecuador in balsas—most probably from the Isthmus of Panama. At all events the balsa has, from time immemorial, been the water craft of the Indians of Ecuador. They float up and down the rivers and bayous (esteros) with the tide, transporting their produce and returning home. Some build their cabins on their balsas, which thus become their only homes. They do not fear to go to sea in their balsas, for it is impossible to sink them.

The balsa wood is very white, soft, strong, and floats like a cork.

I regret that my lack of information prevents me from going into particulars about others of the most rare and valuable woods mentioned in the table. I write only of those which I see in use every day.

KINDS OF LUMBER USED.

The kinds of lumber preferred are the guayacan, mangle, and imported pine—each for its particular purpose.

Bamboo.—The bamboo is of universal use for ceilings in house building. The matter in the joints being carefully cut out, the cane, from 4 to 6 or more inches in diameter, is flattened out and made like a plank. It not only serves all the purposes of the best quality of lath, but is usually the only weatherboarding of the rear of houses. It is also the flooring material for respectable country houses and for all native cabins.

IMPORTS AND PRICES.

The lumber imported at Guayaquil during the year 1893 amounted to 1,600,000 feet, all from the United States and all dressed lumber. E. Rohde & Co. were the importers. Very little lumber is imported at the other ports of the Republic.

DUTY AND PRICES.

The import duty on lumber is one-half centavo (say one-fourth cent, American gold) per kilogram, plus 30 per cent ad valorem.

Lumber sells in Guayaquil at from $7\frac{1}{2}$ to 9 centavos per foot, say \$37.50 to \$45 per thousand.

CLIMATE.

This country is called Ecuador because the equator covers it—Quito, the capital, being almost on the line, and Guayaquil being scarcely two degrees south of it. The vegetation, however, is not tropical; at least it is not tropical in the great valley of the Guayas. The climate is hot, but from May to December, the dry season, the heat is tempered by an almost constant southwest breeze, the Chonduy, and by clouds. For months at a time, the sun will not be seen, although during that time, it does not rain a drop. From December till May, the rainy and sickly season, when it is not raining the sun frequently comes out with great force right overhead, but during the dry season, there are weeks of weather which one word will probably describe—delicious.

GENERAL BUILDING.

Houses are constantly being built in Guayaquil, but the amount of imported lumber used in their construction is not very great. Ship-building is limited to small craft. The river steamboats and the launches used in the port are generally imported from the United States and put together here.

Railroad building, it is thought, will soon begin. There are only about 50 miles of railroad in operation in the Republic—that which runs from Durañ (across the river from Guayaquil) to Chimbo, at the foothills of the mountains. There is a short line in course of construction at Mochala, and a survey has recently been made for the extension of the line from Chimbo towards Quito. This is a great undertaking which awaits capital and enterprise.

GEO. G. DILLARD,
Consul-General.

GUAYAQUIL, *April 24, 1894.*

DANISH WEST INDIES.

NATIVE WOODS.

The following list of woods grown in the Danish West India Islands is given by Mr. Carl Berg:

<i>Acacia macrantha.</i>	<i>Maytenus laevigatus.</i>
<i>Avicennia nitida.</i>	<i>Picræna excelsa.</i>
<i>Beurreria succulenta.</i>	<i>Pictetia squamata.</i>
<i>Bucida buceras.</i>	<i>Pimenta vulgaris.</i>
<i>Bumelia euncata.</i>	<i>Piscidia erythrina.</i>
<i>Condalia ferrea.</i>	<i>Randia acubeadæ.</i>
<i>Ademathera Pavoniana.</i>	<i>Ranolfia nidita.</i>
<i>Mamea Americana.</i>	<i>Swietunia Mahogeni.</i>
<i>Capparis cynophallophora.</i>	<i>Thespesia populnea.</i>
<i>Colubrina reclinata.</i>	<i>Thevetia neivifolia.</i>
<i>Creecendia arylete.</i>	<i>Zanthoxylum flavum.</i>
<i>Eugenia floribunda.</i>	<i>Zanthoxylum Clava Herculi.</i>
<i>Eugenia pallens.</i>	<i>Zanthoxylum Ochroxylum.</i>
<i>Erithalis fructicosa.</i>	<i>Croton.</i>
<i>Exterme caribean.</i>	<i>Acacia nudiflora.</i>
<i>Coccoloba punctata.</i>	<i>Guaiacum officinale.</i>
<i>Coccoloba niven.</i>	<i>Canella alba.</i>
<i>Coccoloba uvifera.</i>	<i>Chrysophyllum microphyllum.</i>
<i>Jacqvia arborea.</i>	<i>Psidium guava.</i>
<i>Libidibia coriaria.</i>	<i>Sapota sideroxylon.</i>
<i>Leucaena glauca.</i>	

Besides the above-mentioned woods, which are used for building purposes and furniture (botanical names only are given), there can be found about 350 varieties that are used for medicinal and other purposes.

KINDS OF LUMBER USED.

The principal woods used here are pitch pine, white pine, and spruce, the first being preferred for housebuilding, because ants, which destroy the spruce in a few years and the white pine in time, do not touch hard pine. White pine is used for house trimmings. Spruce is used but little, if at all. Southern pine and oak, in small quantities, are used for the repair of ships which touch here in distress. Nearly all these woods are imported from the United States.

The native woods are generally of small growth, fit for building boats, wharves, and small vessels. Furniture is also made of native woods.

IMPORTS OF LUMBER.

The following statement shows the imports of lumber at St. Thomas for the years ending March 31, 1891, 1892, and 1893:

Whence imported.	1891.		1892.		1893.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	<i>Feet.</i>		<i>Feet.</i>		<i>Feet.</i>	
United States.....	634,218	\$11,035	407,791	\$5,611	259,133	\$5,619
Canada.....	29,455	458	107,368	1,496	185	87
British West Indies.....	5,644	169	2,700	71	221	50
Other countries.....	1,116	89	1,175	251	125	28
Total.....	670,433	11,751	519,034	7,429	259,664	5,784

DUTY AND PRICES.

The import duty is 3 per cent on declared invoice value of all goods.

Pitch pine is sold at \$30 to \$35, and white pine from \$35 to \$40 per 1,000 feet. Spruce and oak are imported by ship carpenters solely for their own use in repairing ships, etc., and are not for sale.

CLIMATE.

The climate of the Danish West Indies is in general healthful, the islands being situated in latitude 17° to 18° north and nearly in the strength of the northeast trade winds, which blow nearly the entire year, the thermometer in the winter months ranging from 70° to 80°, and in summer, 80° to 90° F.

GENERAL BUILDING.

All the large houses here are built of brick and stone, with wood floors, windows, doors, etc. Small houses are built entirely of wood, with stone foundation about 10 feet high. Small fishing boats and row boats are built of the native woods. No large vessels are built here. There are no railroads within my consular district.

EXTENSION OF LUMBER TRADE.

As will be seen from the statement of imports, the United States leads all other countries.

I can offer no suggestions, as I see no means of further extending the trade of American lumber in these islands.

J. H. STEWART,

Consul.

ST. THOMAS, WEST INDIES, *March 9, 1894.*

ASIA.

BRITISH ASIA.

CEYLON.

NATIVE WOODS.

There are 156 varieties of useful timber classified in Ceylon, as will be seen by the inclosed publication, List of the Principal Timber Trees in Ceylon.*

IMPORTS OF LUMBER.

The timber (all wood is called timber here) imported in 1892 was teak logs from Burma, to the value of \$112,600; and from Great Britain, creosoted pine or fir railroad sleepers, value, \$7,000. The quantities are unknown.

All timber is free of duty.

PRICES.

The timber mostly used here for house building and furniture making is sold as follows: Teak, \$1.23 to \$1.33 per cubic foot, in planks and scantlings; jack wood and nadun 1-inch thick planks, from 6 inches to 24 inches wide, from 5 to 10 cents per square foot; scantlings, from 58 cents to \$1 per cubic foot; logs, from 42 to 50 cents per cubic foot; satinwood, in round logs, purchasable from Government, 33, 55, and 67 cents per cubic foot, and for satinwood, sawn to planks, 11 cents per cubic foot are added to the log prices. Ebony, in logs, \$25 to \$45 per ton, according to quality.

CLIMATE.

The climate is humid. The rainfall on the west coast is about 100 inches per annum, and amongst the hills of the interior it is sometimes upwards of 250 inches. The east coast is somewhat dryer, say 30 to 110

*Filed in Bureau of Statistics.

inches per annum, but imported lumber of any description is not wanted there, as the forests abound in ebony, satinwood, and various other valuable timber trees.

For full particulars of rainfall, see Appendix B,* and as regards temperature, the heat is absolutely and always tropical.

GENERAL BUILDING.

Wooden houses are very rarely built in Ceylon; most of the better-class habitations are of brick, and wood enters into their construction only for the frames of the roof, doors, and windows, and occasionally for upstairs floors—teak, jack, and satinwood are mostly used for these purposes, and there is no wood in the United States that could be profitably substituted for them.

There is no shipbuilding and very little railroad building; and what with native woods, and creosoted pine, for sleepers, and teak for carriages, all of the railroad demands for lumber are fully supplied. There is in fact an abundance of valuable timber always for sale; say, ebony and satinwood, which, if properly handled, would pay for exportation to the United States.

W. MOREY,
Consul.

CEYLON, *January 27, 1894.*

SEASONING TIMBER.

[Extract from the publication entitled *List of the Principal Timber Trees in Ceylon*, by A. Mendis Lenanayke. Translated by Consul Morey.]

To season timber so that it may become one-fifth more durable than in its ordinary state, observe the following instructions of Thomas Tredgold, esq., civil engineer, Fellow of the Institution of Civil Engineers, etc., of Newcastle-on-Tyne:

When timber is felled, the sooner it is removed from the forest the better; it should be removed to a dry situation, and placed so that the air may circulate freely about each piece, but it should not be exposed to the sun and wind. Square timber does not rift or split so much as that which is round; and when the size of the tree will allow, if beams are to be used the full size of the tree, it would be a good preservative against splitting to bore them through from end to end, as is done in a water-pipe. It is irregular drying which causes timber to split, and this method assists in drying the internal part of the beam without losing much of its strength, and at the same time it would lighten it considerably.

On account of the time required to season timber in the natural way, various methods have been tried to effect the same purpose in a shorter time. Perhaps the best of these is to immerse the timber in water as soon as it is cut down, and after it has remained about a fortnight in water, but not more, to take it out and dry it in an airy place.

For protecting timber against white ants, to every gallon of water add 3 ounces of croton taglium seeds, 3 ounces margosa bark, 3 ounces sulphur, 2 ounces of blue vitriol. Immerse the timber until it ceases to absorb the water, and afterwards take out and dry in an airy situation.

* Filed in Bureau of Statistics.

INDIA.

NATIVE WOODS.

The most notable native woods for timber are the teak (*Tectona grandis*) and the sal (*Shorea robusta*). The teak is indigenous to both peninsulas of India. In certain localities the supply may be considered inexhaustible.

Teak.—Teak reaches a girth of 10 to 15 feet, and has a clear trunk of 70 or 80 feet to the first limb. In British Burmah teak exceeds in value all other trees combined. The sapwood of teak is white and small. The heartwood, when cut green, has a pleasant and strong aromatic fragrance and a beautiful dark golden color, which on seasoning soon darkens into brown, mottled with darker streaks. The timber retains its fragrance to a great age, the characteristic odor being apparent whenever a fresh cut is made. Teak is a wonderfully hard wood, exceedingly durable and strong, and, once seasoned, does not split, crack, warp, shrink, or alter in shape. It owes its chief value to its great durability, which is ascribed, probably with justice, to the circumstance that it contains a large quantity of fluid resinous matter, which fills up the pores and resists the action of water. At the Karli caves, near Poona, there is teakwood work 2,000 years old which seems perfectly good at the present day. Teak lumber from different localities varies greatly in appearance, weight, and strength. Teak weighs about 40 pounds per cubic foot. It is used in India for construction, bridgemaking, sleepers, and for manufacturing furniture. It is exported to Europe chiefly for building railway carriages, for shipbuilding, for making decks and lower masts, and for the backing of armor plates on ironclads. It is peculiarly useful for the latter purpose owing to the resinous matter which it contains, acting as a preventive against rust, the wood neither affecting the iron nor being affected by it. It is far superior to oak in this respect. The trade in teak is very large and important, and, notwithstanding the competition of other materials, shows no signs of diminution.

Sal.—The sal tree (*Shorea robusta*) is one of the most valuable timber trees in India. The sapwood is distinct, is small in amount, and not durable. The heartwood is brown in color, finely streaked with dark lines, coarse grained, hard, strong, and tough, with a remarkably cross-grained and fibrous structure. The fibers of successive concentric circles do not run parallel but at oblique angles to each other, so that when the wood is dressed the fibers appear interlaced. It does not season well, but splits and warps in drying, and even when thoroughly seasoned absorbs moisture with avidity in wet weather, increasing one-twenty-fourth in bulk and correspondingly in weight. During the process of seasoning it dries with great rapidity on the surface, with superficial flaws from unequal shrinkage. Sal, when thoroughly

seasoned, stands almost without a rival as a timber for the qualities of strength, elasticity, and durability, which qualities it retains, without being sensibly affected, for an immense length of time. The average weight of the seasoned sal is about 55 pounds to the cubic foot. This timber is the one most constantly used in Northern India. It is in quest for beams, planking, railings for bridges, doors and window posts for houses, for gun carriages, for the bodies of carts, and, above all, for sleepers for railways. In Assam it is used for boat building. Owing to the fact that when unseasoned it is not floatable, difficulty is experienced in getting the lumber out in the log. This is overcome, however, by floating the logs either with the assistance of floats of light wood or with bamboos.

Artocarpus.—The *Artocarpus chaplasha* grows in Burmah and Eastern Bengal. The wood is brownish-yellow, moderately hard, even-grained, tough, durable, and seasons well. It seems to get harder and heavier as it gets older. It is used for various purposes, and is very superior for use under water.

Bamboo.—The bamboo, while in reality a grass, forms the most important portion of the minor forest produce of all forest divisions and one that increases in value every year. It would occupy a volume to enumerate by name all the uses to which the native bamboo stems are put. To the inhabitants of the regions where the bamboo luxuriates it affords all the materials required, not only for the erection but the furnishing of the ordinary house. Certain species are more serviceable for posts, others are more adapted for basket work, but with one or two species every requirement can be met. It is cut up and split into bands of every size and thickness, so as to allow of its being manufactured into mats of any degree of quality, from the finest to the coarse mats so extensively used for walls in housebuilding. Hollow bamboos are cut at the nodes lengthwise, and then opened out and flattened into slabs, which may be used for the seats of chairs, tops of tables, beds and other articles of furniture. The large Karen houses, each of which constitutes a village in itself, being large enough to contain 200 or 300 persons, are constructed entirely of bamboo. The greater part of the people of eastern India and the Malay peninsula live in bamboo houses. Bridges are built of bamboo in all parts of India. If in good condition they may be ridden over with perfect safety. The larger hollow species are used for aqueducts, water pails, pots, cups, and other vessels. A single joint of a green bamboo is often used for boiling the family dinner of rice. All sorts of agricultural instruments are also made of bamboo and the appliances for spinning cotton and wool, and also for reeling silk, are often constructed entirely of this material. The Assamese make fishhooks of bamboo.

Teak and sal are the most important sources of lumber, while bamboo is used more than all kinds of timber combined, for many of the uses to which lumber would be applied in other countries. Teak is preferred in all cases where permanency is required.

IMPORTS OF LUMBER.

The imports of lumber at Calcutta, for 1892-1893, were as follows from the different countries:

Whence imported.	Cubic tons (50 cubic feet).	Value.
Teak:		<i>Rupees.*</i>
Zanzibar	1	29
Ceylon	20	1,540
Siam	2,594	173,613
Straits Settlements	93	8,050
Total	2,708	183,232
Other timber:		
United Kingdom	1,499	109,291
Austria	22	1,526
Belgium	3	245
Germany	118	6,641
Italy	2	153
Norway	2	225
Sweden	510	27,336
Mozambique	86	3,350
Zanzibar	483	15,041
Madagascar	27	550
Natal	25	400
South America	5	170
United States	1,697	88,973
Ceylon	2,779	89,197
Hongkong	10	1,000
Java	9	240
Makran and Sonniance	22	1,117
Straits Settlements	4,250	179,909
Siam	4	261
Sumatra	8	170
Australia		36
Total	11,561	525,841
Grand total	14,269	709,073

* On April 1, 1894, the value of the rupee, according to the U. S. Treasury, was 22.1 cents.

DUTY AND PRICES.

There is no import duty on lumber from any country.

In the Calcutta market the prices of lumber per cubic ton (50 cubic feet) are as follows: Teak, 85 to 100 rupees (\$18.78 to \$22.10); sal, of superior quality, 125 to 150 rupees (\$27.62 to \$33.10); sal, of inferior quality, 60 to 75 rupees (\$13.26 to \$16.75); Oregon pine, 50 to 60 rupees (\$11.05 to \$13.26).

CLIMATE AND GENERAL BUILDING.

The climate of India is tropical. Up country it is hot and dry, and in Bengal and eastern India, hot and damp.

But little lumber is used in building in Bengal, such as is used being principally teak. Other timber would not be safe on account of the white ants and borers, which eat out and honeycomb other timber in every direction. The walls of the houses of the better classes are of brick, with teak beams, the roofs being cemented. The native houses are more cheaply built with walls of bamboo stems and matting, plastered with mud, and thatched roofs.

The shipbuilding of India is practically of no moment. In railroad building, there were opened to traffic last year 395½ miles of line. The total railway mileage of India is 20,272½. The officials of the Indian railways endeavor, wherever possible, to use iron for crossties and for construction purposes, on account of the ravages of the insects. Various creosoted and otherwise prepared woods have been tried, but have not given much satisfaction.

EXTENSION OF LUMBER TRADE.

On account of the high freight rates, it does not pay to move lumber about much in India, and it does not appear probable that much American lumber could be used in the interior. A small quantity can be and is used in the seaboard cities, but the quantity could not, I think, be very greatly increased. One or two shipments of Oregon pine have been made to Calcutta, but a small amount gluts the market, and it requires a considerable time to work it off. Iron beams are to some extent supplanting even the native teak. There are some thirty registered stock companies, and a few individuals, running sawmills in India. The value of their output is estimated at 12,031,111 rupees (\$2,656,765). To this must be added about the same quantity of lumber got out by hand. The mills employ about 10,000 persons.

VAN LEER POLK,
Consul-General.

CALCUTTA, *March 7, 1894.*

CHINA.

AMOY.

NATIVE WOODS.

The native woods are nearly the same as in the United States, and include pine, oak, cedar, cherry, chestnut, ash, whitewood, and locust. Native woods well known in the United States are bamboo, teak, ebony, ironwood, boxwood, and camphor wood.

KINDS OF LUMBER USED.

Pine is the favorite lumber, especially in the form of "Foochow poles," which are long trunks, stripped of bark and branches. Almost equally popular is the bamboo. Teak is used, wherever the expense will allow, in house and naval construction, on account of its resistance to decay, to white ants, and to boring insects.

IMPORTATIONS.

It is very difficult to obtain figures as to the importation of lumber. So much comes into port in the form of dunnage, ballast, loans, and spare pieces—none of which are recorded by the customs—that no accurate estimate can be made. Thus, the Amoy customs reports of 1892 give the imports of hard-wood plank at 4,507, valued at \$2,375; imports under “sundries” of lumber are not specified. In the market we have camphor wood in trunks and planks from Formosa, poles and planks from the interior and from Foochow, hard woods from the Philippines, Borneo, the Straits Settlements, and South China. Upon the whole the importation of lumber can not be very large.

DUTY.

The duty on imported lumber and timber is as follows:

Kinds.	Duty.
Masts and spars:	
Hard wood, not over 40 feet.....each..	\$4. 00
Hard wood, not over 60 feet.....do.....	6. 00
Hard wood, over 60 feet.....do.....	10. 00
Soft wood, not over 40 feet.....do.....	2. 00
Soft wood, not over 60 feet.....do.....	4. 50
Soft wood, over 60 feet.....do.....	6. 50
Beams,* hard wood, square, not over 26 feet and 12 inches square.....do.....	. 15
Piles, poles, and joists.....do.....	. 03
Kranjee wood (36 by 1.8 feet by 1 foot).....do.....	. 80
Planks, hard wood (not over 24 feet by 12 by 3 inches).....do.....	. 35
Planks, hard wood (not over 16 feet by 12 by 3 inches).....do.....	. 02
Planks, teak.....per cubic foot.....	. 035
Redwood.....per 135 pounds.....	. 11

Soft wood planks, 6 inches and over in thickness, 5 per cent ad valorem.

* Five per cent ad valorem or optional.

CLIMATE.

The climate of Amoy is tropical and unhealthy. The city is a nest of smallpox in winter and of cholera in summer. The weather is never cold. Snow has fallen once in fifty years. In summer the thermometer is at about 85° F. for five months. In winter it averages about 60° F. The hygrometric conditions are peculiar. Sometimes the air is so dry as to be unpleasant, while at others it is saturated with moisture. In the latter state sugar and salt, if exposed to the atmosphere, become liquid, wooleus become wet and moldy, leather is devoured by fungoid growth, and floors, walls, and ceilings are covered with water.

Wood shrinks considerably in the dry season, and expands rapidly and powerfully in the wet season. For this reason doors and windows either rattle in their casings or are opened with great difficulty.

GENERAL BUILDING.

Although the housebuilder of China, especially Southern China, uses brick, tile, stone, and cement in every possible manner, even going

so far as to construct 95 per cent of all floors of these materials, and avoids the use of wood as far as he can, there is still a large and ever-increasing trade in lumber. It is used in architecture, shipbuilding, furniture-making, box-making, coffin-making, church decoration, and theater-framing. It is not used in house-framing or bridge construction by reason of storms and white ants; nor in sheds, wharves, plank roads, fences, and railings.

Building never stops. Chinese houses are not made to last. Not one in a thousand will last thirty years unless constantly repaired. They contain from two to forty rooms each and are usually one story in height. The foundations are cut granite; the walls cheap brick, covered with mortar and kalsomined; the roof is tiled with red tiles; the floor is tiled or bricked; the casings of doors and windows are generally granite; the windows are barred with wooden, iron, or granite bars; the doors are made of planks, with heavy cross pieces; the roof and beams are made of poles; the mantelpiece is brick and mortar; the kitchen, stone; benches, brick; bath tub, cement or earthenware; and the washboards are stone. When washtubs are used they are of coarse earthenware. The settees are usually granite slabs or brick piers. The chopping block is of stone. In this way the use of wood in housebuilding is reduced to a minimum. One two-story American frame house would supply enough wood for 200 Chinese houses.

The reason of this odd state of affairs lies first in the prevalence of fierce storms, especially typhoons, which would shatter a wooden edifice in a few minutes; and, secondly, in the devastating power of white ants and other insects. There is no remedy for these pests. When they get into a roof beam the beam must come down and a new one be used in its place, otherwise the roof may come down any moment and crush the entire household.

In shipbuilding the Chinese prefer their own woods and their own system to ours. Of a hundred foreign ships, condemned and sold in this district, only one was ever utilized by the natives for maritime purposes.

There may be a good field in this district for tea wood; that is, the thin sawn boards with which they make tea boxes. At least 1,000,000 boxes are made here every year. They are made by hand and marketed in shooks like shingles. A modification of the shingle machine would turn these out at a much lower cost and produce a far better article. If the woods would serve the purpose, I doubt not but that the California redwood and the Oregon pine might be worked up into tea wood and form a profitable commodity. If freights and insurance added to prime cost destroyed the apparent profit, there might still be a chance here for the ingenious shingle machines of the Pacific coast.

WILLIAM E. S. FALES,

Vice-Consul in charge.

AMOY, April 12, 1894.

CANTON.

Nearly all of the timber used in buildings is brought from Borneo, and is a heavy, hard wood, something like teak; it is sawed here as required. From the adjoining province of Kuang Si, some soft wood is brought for fuel, and some for beams, door and window casings, boxes, etc. There are no trade statistics available as to the quantity imported. Little or no American lumber reaches this market. The destructive action of white ants upon all kinds of wood, and especially upon soft wood, is awful, and is a serious feature in buildings.

CHARLES SEYMOUR,
Consul.

CANTON, *March 12, 1894.*

HONGKONG.

NATIVE WOODS.

There are no trees indigenous to the island of Hongkong.

Its present well-wooded condition is due entirely to artificial afforestation.

KINDS OF LUMBER USED.

China fir, for flooring, door and window frames, rafters, and scaffolding. There are forty-eight varieties of hard wood imported from the Philippine Islands, viz: Aele, agajac, amogins, antipolo, annbing, apition, aranga, baucal, bauaba, bausalagque, bauoyo, baticulin, batituan, betis, calamansaseay, calimbajim, columpit, camagon, culasi, cedar, dalinoe, daugay, dingeas, doliton, dougon, guijo, ipit, labuan, lanete, macasin, manguchapuy, malarujat, malasaguin, malatapay, molave, narra, pæna, palomaria, palma brava, palo maria de playa, taughili, tindalo, tindu-pantay, tucan-calo, tuog, supa, uban, yacal.

Of these Aranga, Molave, and Yacal are the only varieties in constant demand for house, ship, and wharf building purposes.

Molave is especially adapted for rudders, stem and stern posts, and piles, being practically weatherproof and not attacked by worms.

Aranga and Yacal are chiefly used for flooring, planking of wharves, and the outside planking of ships.

From Borneo are obtained Yacal, Kruen, and Serayat.

Kruen is largely used for the sheathing and casing of electric wires in houses.

Serayat is consumed in large quantities by the manufacturer of so-called "camphor-wood trunks." The grain resembles closely that of the genuine camphor wood, and when the Serayat has been steeped

in a solution of camphor, dried, and polished, only an expert can distinguish between the genuine and the counterfeit. Teak, China fir, and the genuine camphor wood are imported from the interior of China. A small quantity of Oregon pine is brought from the United States. This is at present used only for repairing ships and replacing masts and spars. The quantity is comparatively small, the bulk of it being brought by one vessel, a bark of about 800 tons, which makes one voyage a year.

DUTY AND PRICES.

Hongkong being a "free port," there are no import duties and no custom-house; hence it is absolutely impossible to obtain any statistics of the amount of lumber imported from other countries.

Oregon pine sells for about \$30 per 1,000 feet. The various hard woods bring from 60 cents to \$1.25 a cubic foot, according to quality.

CLIMATE.

We have practically only two seasons in the year, the dry and the rainy. The first lasts usually from September or October to February, inclusive, the second during the rest of the year. The heaviest rainfall is usually in June, when the heat is oppressive. After the 1st of July the humidity of the atmosphere greatly diminishes, and although the temperature during July and August averages 80° to 81° F. (the maximum for last year being 93.9°), the heat is by no means unbearable for persons properly clothed.

During July, August, and September Hongkong is subject to frequent circular storms or typhoons, which usually arise in the Philippines and travel northward up the Formosa Channel and the east coast of China, occasionally proving very destructive to life and property, particularly if they bend to the westward and go inland.

From October to January is usually the pleasantest part of the year, closely resembling the New England autumn or Indian summer. The lowest temperature recorded in 1892 was 44.2° F.

Although the city is built on a rocky hillside, malaria is very prevalent; but this is chiefly attributable to the entire absence (until recently) of drainage. Under the present enlightened régime there is no doubt that Hongkong should become, like Singapore, a recognized sanitarium for those debilitated by malaria or bowel diseases.

W. E. HUNT,
Consul.

HONGKONG, *February 22, 1894.*

TIENTSIN.

NATIVE WOODS.

There is really very little timber grown in the vicinity of Tientsin, or in the Provinces of Chihli, Shantung or Shansi. A considerable amount of elm, however, used here by the natives, for small repairs to houses, junks, etc., comes from the country in the neighborhood of Peking.

So far as I can discover there are no uncommon varieties of wood in the large section of China north of the Yellow River or Hwang-ho.

For centuries there has been no recorded policy in China for the protection of forests. The result is that the country is almost barren of timber, few trees escaping the woodman's axe sufficiently long to reach maturity.

Sometime ago the viceroy of the Province of Chihli, Li Hung Chang, who resides at Tientsin, realizing the situation, which was forced upon his notice by undertakings under his control requiring large and heavy timber, offered a bonus to encourage villagers in the cultivation of trees, but the few attempts that were made proved futile.

China is, therefore, wholly dependent upon other countries for lumber required in enterprises of any magnitude—a fact worthy of attention.

KINDS OF LUMBER USED.

For wharves, jetties, and many works on the Imperial Railway of Northern China, requiring lumber of considerable length and thickness, Oregon pine has scarcely a competitor. Its only rival is the cheaper and commoner pine from Korea, used where medium sized timber is needed. In railway construction in Northern China, to the discussion of which I shall devote a special paragraph, Oregon pine is used for all temporary bridge structures, for roofing, and for building freight cars. Teak is the wood employed at present in constructing passenger cars. Two cargoes of Oregon lumber, by sailing vessels, were bought by the Imperial Chinese Railway Company last year, and I am informed that another cargo is soon to arrive.

About eleven years ago Oregon pine was for the first time imported direct from Victoria, British Columbia, and from Port Townsend, but previous to that time a considerable supply of this wood reached Tientsin, via Shanghai and Hongkong. Even now it is so imported at intervals.

So far, then, as soft wood is concerned, we may safely assume that Oregon pine is safe from rivalry.

There is a large market here for hard wood, which market is untouched except from Vladivostock, Russia; Sandakan, Borneo;

Laquimanoc, Philippine Islands. The hard wood from Russia is generally small, ranging in size from 12 by 12 up to 16 by 16 inches by 25 to 30 feet in length, and is known as hakmatak. But this hard wood is not a dangerous competitor to the hard woods from Borneo and the Philippine Islands, the Russian Government frequently refusing to allow it to be exported, as it is in demand for the Siberian Railway.

Of Borneo woods the best is billian, and for strength and durability this wood can scarcely be surpassed. It bears exposure well, and seems almost indestructible. When newly cut, billian resembles oak, but with age and exposure it becomes as black as ebony. Samples of this wood have been shown me weighing 70 pounds per cubic foot. Other Borneo woods imported are russock, kapore, and serayah. The last-mentioned wood has a strong resemblance to soft mahogany, and is used for all purposes for which pine is suitable, and for furniture. Although serayah is soft, and therefore easily worked, it is very strong, tough, and heavy, weighing, on an average, 43 pounds per cubic foot. Borneo woods average in size 12 by 12 to 14 by 14 inches by 30 feet in length. If the question of expense is laid aside, one can with difficulty obtain Borneo woods 20 by 20 inches and 30 feet in length.

I am satisfied that, taking everything into consideration, the hard woods preferred in northern China come from the Philippine Islands. Of these, it has been estimated there are 30 varieties that have been brought from time to time to Tientsin. The best-known Philippine wood is the teak-like molave, which is grown from 11 to 22 feet in length and 12 to 24 inches square. Special lengths of this wood from 30 to 35 feet can be obtained to a limited extent at considerable extra cost. Molave is an excellent wood for resisting the action of the climate, which at times is very dry and at others very wet. It is also especially valuable for work on the surface or underground, as it is impervious to the action of the lime with which the soil around Tientsin is impregnated. This wood, as well as another variety known as bausalaque, is in general use for all purposes where an extra strong and durable wood is required.

The Chinese use a considerable quantity of hard wood yearly for general purposes and for repairing temples around Peking and in building and maintaining in order the imperial mausoleums. Work on the temples and tombs requires, not infrequently, wood 20 to 30 inches square by 40 to 60 feet in length, and Tientsin merchants, whenever they are able to supply such wood free from knots, cracks, and other defects, religiously observe the privilege of naming their own price.

Large quantities of small, soft-wood planks are frequently imported from Japan. These planks are very cheap. A Japanese soft-wood plank measures approximately 7 feet in length by 12 to 14 inches in width by 1 inch in depth, and is sold for 12 to 13 tael cents, or, at present low exchange, $8\frac{1}{2}$ to $9\frac{1}{4}$ American cents.

IMPORTS OF LUMBER.

Hard wood.—It is extremely difficult to locate the exact source of all the hard wood that comes to Tientsin, but it may be assumed that it is mainly shipped from Borneo, the Philippine Islands, and Russia. I have not discovered that hard wood comes from other quarters than those mentioned, although occasional shipments of Borneo woods come from Singapore.

Soft wood.—The following table of the imports of wood for 1889, 1890, 1891, 1892, and 1893, made up from the imperial maritime customs returns, gives but an imperfect idea of the sources and quantities of soft wood imported. A considerable portion of soft wood is transshipped at Chinese ports, before reaching Tientsin. This is a source of annoyance to the customs officials, who can not avoid making mistakes in separating the importation of native from foreign woods. A strenuous effort is made to do so as is shown by the divisions in the table. It is regrettable that this table does not convey a fair idea of the trade, as the customs do not take cognizance of timber imported for Government undertakings, of which the principal is the railway supplies, for such enterprises are passed duty free. Shipments from the United States destined for Tientsin could be more accurately ascertained at the ports of loading. Soft-wood logs come from Korea as mentioned above and a great number of soft-wood planks come from Japan.

In 1893 the railway imported from Japan 44,991 sleepers or ties. C. W. Kinder, esq., engineer in chief of the railway company, informed me that Japan sends most of the sleepers, quotations from the United States and Canada being too high, owing to the freight.

I am also well informed that a great number of the soft-wood planks returned as coming from Chinese ports are in reality sent from Japan and transshipped at Shanghai.

Table of imports.

Description.	1889.	1890.	1891.	1892.	1893.
Hardwood beams:					
From foreign countries.....pieces..	5, 912	.....	.....	.....	137
From Hongkong and Chinese ports....do....	579	2, 447	1, 565	539	18
Hardwood logs:					
From Hongkong and Chinese ports....do....	.....	.....	.....	*33, 795	150
Hardwood planks:					
From foreign countries.....do....	1, 086	102	.....	.....	.....
Native wood from Chinese ports.....do....	9, 364	225	1, 096	1, 121	.....
Softwood planks:					
From foreign countries.....square feet..	537, 506	397, 104	476, 982	336, 061	235, 768
From Hongkong and Chinese ports....do....	1, 601, 504	1, 035, 918	1, 412, 363	862, 291	1, 629, 181
Native wood from Chinese ports.....do....	553, 313	557, 530	626, 455	354, 019	.....
Soft-wood beams and logs:					
From foreign countries.....pieces..	1, 607	923	.....	.....	2, 850
From Hongkong and Chinese ports....do....	.....	.....	22, 939	.....	.....
Native wood from Chinese ports.....do....	.....	.....	.....	4, 846	.....

* Cubic feet.

DUTY.

The duty on importations of wood, except those destined for Government enterprises, which are duty free, is 5 per cent ad valorem. This is not, however, the only charge that a cargo of lumber has to bear. The bar at the mouth of the river Peiho, which vessels drawing more than $11\frac{1}{2}$ to 12 feet can not get over, necessitates lighterage. Lighterage charges are heavy, being 2.75 taels *(\$2.10) per 1,000 superficial feet, from outside the bar, and 1.75 taels (\$1.34) per 1,000 superficial feet from inside the bar to the foreign settlement at Tientsin.

Tientsin is situated 27 miles in a straight line from the mouth of the Peiho River, where there is a small settlement called Taku. The Peiho is a narrow, shallow, muddy river, and the distance from Tientsin to its mouth, by its meandering course, is about 50 miles. Tientsin is closed to navigation during the months of December, January, and February on account of the ice, which blocks the entrance to the Peiho during these months.

PRICES.

If entire cargoes are taken, the prices are naturally cheaper than those given below, which are current for lumber now on hand. It should also be borne in mind that, owing to the recent heavy drop in exchange, shipments made now can not compete by at least 30 per with the stock on hand. Oregon pine 10 by 10 to 20 by 20 inches by 30 to 50 feet can be obtained for 37.50 to 38 taels (\$28.69 to \$29; tongued and grooved Oregon pine planking is now quoted at 31 taels (\$23.72) per 1,000 superficial feet. Vladivostock hardwood is quoted at 23 cents per cubic foot; Borneo hard wood, 65 cents per cubic foot; Philippine hardwood, 84 cents per cubic foot; Koean soft wood, 15.3 cents per cubic foot; Japanese planks, 9 to 10 cents each. Borneo and Philippine hard wood, in sizes over 12 inches square, bring more according to size than the prices above given.

CLIMATE.

Tientsin has a cold, dry winter, the thermometer falling frequently to zero. The summers are extremely hot, with frequent intervals of heavy rains, accompanied by great humidity, and the thermometer has been known to register in the shade as high as 110° F. The spring and autumn months are agreeable in temperature, the transition from winter to summer and *vice versa* being gradual. The climate is considered a fairly healthful one.

SHIPPING AND EXCHANGE FACILITIES.

As a means of developing the lumber trade of the United States with this section of China, attention should be given to what might be called "useful tonnage."

*Haikwan (customs) taels = 76.5 cents—U. S. Treasury valuation on April 1, 1894.

Sailers that draw about twelve feet when the deck load is taken off, and that can carry as many logs as possible, without a heavy proportion of "broken cargo," or planks and laths (which latter always sell badly and reduce the profits on the venture), and that are about 400 tons measurement, are considered by experienced Tientsin merchants to be handiest and best. A vessel of the above description with a 6-foot deck load should bring 450,000 superficial feet to the bar, and 300,000 up to Tientsin itself, the vessel being lightened of 150,000 feet to enable it to get over the bar.

There are no difficulties in the way of financing shipments, as the prominent banks of China are represented at this port.

The following foreign houses interested in American trade are established here: Carlowitz & Co., Collins & Co., Cordes & Co., William Forbes & Co., Hatch & Co., Jardine, Matheson & Co., Mackenzie & Co., E. Meyer & Co., Philippot & Co., and Wilson & Co. The firm most extensively interested in lumber here is William Forbes & Co.

GENERAL BUILDING.

Railway construction.—During the last year rails were laid to Shan Hai Kwan, a distance of 180 miles from Tientsin, by way of Taku. Shan Hai Kwan is on the Gulf of Pechihli at the eastern terminus of the Great Wall, and the road is apt to stop here for the present as funds are in great demand at Peking for the festivities soon to occur, on the occasion of the Empress Dowager's sixtieth birthday. The first 80 odd miles of this road to Shan Hai Kwan are under the control of the China Railway Company and lead up to the Kaiping coal mines. These mines are the chief reason for this road, from the mines to Taku. The remaining 100 or less miles belong to what is known as the Imperial China Railway, of which Li Hung Chang is the director-general.

It is intended in time to push the Imperial Railway beyond the Great Wall in a northerly direction through Manchuria to Moukden and Kirin, in the neighborhood of the Russian frontier, a distance of about 450 miles from Shan Hai Kwan. This contemplated extension will require many temporary wooden bridges.

It is the imperial policy to replace all temporary bridges and works by steel structures and solid masonry.

The progress of railway extension in this consular district will be noted from time to time in my general reports to the Department. As the only railway in this vast Empire, its development will undoubtedly be carefully watched by those interested in railroad construction.

The Kaiping coal mines above mentioned are the only considerable mines in China worked by foreign methods and machinery.

SHERIDAN P. READ,

Consul.

TIENTSIN, February 27, 1894.

JAPAN.

NAGASAKI.

NATIVE WOODS.

Kiyaki, the hardest wood of Japan, resembling oak in fiber and capable of high polish, is used chiefly for fine work and for frames of ships. It is becoming very scarce, the price within the past few years having doubled. Hinoki, the finest kind of pine, is used in better class house building, furniture, for lacquerware, and for building Shinto temples. Sugi, fine cedar, principally used in house and shipbuilding. Aka matsu and kuro matsu, ordinary pines, decay rapidly under exposure to the atmosphere; used in common work. Kashi no ki, a species of oak, very scarce and small; used only for finest work. Kuso no ki, camphor wood; used for frames of ships, boxes, etc. Taki (bamboo), exists in considerable quantities, and, as elsewhere, is considered the most useful of woods.

KINDS USED, AND IMPORTS.

The wood most commonly used is pine.

The annual imports of lumber are about as follows: From Oregon, \$30,000; from Philadelphia, \$49.50; from India (teak), \$86,686; from China, \$10,000; total, \$126,735.50.

DUTIES AND PRICES.

The duty on imported lumber is 5 per cent ad valorem.

The prices are as follows:

Kinds.		Prices.	
		Sen.	Yen.
Sugi.....	per kata..	30 to	1. 00
Hinoki.....	do....	50	2. 50
Kashi no ki.....	do....	60	1. 00
Kiyaki.....	do....	1. 00	2. 50
Akawku.....	do....	50	1. 20
Kuramaeku.....	do....	50	1. 20
Kuso no ki *.....	do....		
Taki (bamboo):			
Long.....	each..		40
Small.....	per bundle..		12
Do.....	each..		1½

The kata=14 feet long and 5 inches wide and thick; the yen=53½ cents American; 100 sen=1 yen.

* Used only for the extraction of its oil. None in the market.

CLIMATE.

At Nagasaki the thermometer ranges from 30° to 98° F., showing marked differences from places in the same latitude in the United

States. The climate nearly resembles that of Charleston, S. C. Continuous hot weather begins about June and lasts until the middle of September.

GENERAL BUILDING.

With the exception of native junks, the only shipbuilding in this district, to any extent, is done by the Mitsu Bishi Company. There is a line of railroad running from Moji to Kumamoto, a distance of about 120 miles. There has been but little increase in railway mileage for the last six years.

The Mitsu Bishi Company, who have their engine and shipbuilding works at Akenoura, opposite Nagasaki, are the largest and, I believe, the only importers of Oregon lumber, as yet, in this district. They import quantities to the value of about 30,000 yen yearly, in lengths of 30 to 40 feet by about 3 to 6 inches; this is specially prepared and ordered six months in advance. The price for Oregon pine would be about \$39, gold, per 1,000 superficial feet in Oregon; delivered here, about \$50, gold.

The Mitsu Bishi Company have built during the past year 3 steamers, registered tonnage, 500 each, with triple expansion engines; speed, 10 to 11 knots; 1 vessel of 1,500 tonnage, triple expansion, 11 knots; and one of 2,000 tons, triple expansion, 11 knots. All of these are of the highest class, registered at Lloyd's 100 A1.

EXTENSION OF LUMBER TRADE.

Large quantities of lumber have been exported to China from Kiushiu, but the amount is steadily decreasing. As far as the Island of Kiushiu is concerned, the rapid destruction of the native forests is rendering wood more and more scarce, with a corresponding steady advance in price from year to year; it is therefore only a question of time when lumber, especially seasoned pine from the Northern Pacific coast, will find a large and growing market in Southern Japan.

W. H. ABERCROMBE,
Consul.

NAGASAKI, *February 5, 1894.*

OSAKA AND HIOGO.

NATIVE WOODS.

The principal native woods in this consular district are pine, cypress, beech, chestnut, oak, and the fir, of which there are many varieties. In the production of lumber and timber for building, these woods supply almost the entire needs of the country.

There is one variety of the cypress family (the hinoki) which is

especially valuable and highly prized. The wood of the hinoki is generally very white, sometimes slightly pink, very fine grained, tough, with little resin, and free from knots. The tree is found chiefly on the mountain sides, and flourishes in a soil composed of granite or volcanic rock. It has long been regarded as sacred, and is planted in many places along the roadside, and forms beautiful avenues leading to temples. The trunks are straight, having a circumference of from 12 to 13 feet and a height of from 100 to 120 feet. The wood is used in the construction of temples, for the ornamental decoration of the most expensive houses, and is preferred for lacquer ware.

There is another wood called kiaki, which by some is said to belong to the family of the beech, by others to that of the oak, but the grain is not so fine as that of the beech and the specific gravity is less than that of the oak. The tree resembles the beech in the color of its bark and general appearance, and resembles the oak in the grain of the wood. The kiaki is regarded as furnishing the best building timber in Japan, but, being expensive, is used mostly for joiner work.

There are three varieties of the fir, which furnish the usual building wood for houses, the sugi, momi, and matsu; the latter, being the strongest, is also used in bridge building. Extensive forests of these woods are cultivated by private individuals, and as the trees grow rapidly, the wood is much cheaper and more abundant.

It is estimated in official reports that of the entire acreage of Japan 23 per cent is covered by mountain forests, owned entirely by the Government, and 18 per cent by cultivated forests, the property of private owners.

PRICES AND IMPORTS.

The price of the above-named lumber is as follows per square foot: Kiaki, 54 sen; hinoki, 54; momi, 20; matsu, 25; and sugi, 21.

At the present rate of exchange 100 sen (one yen) equal 53½ cents United States gold.

Imports of lumber in 1893.

Imported from—	Yen.
Great Britain.....	481. 46
United States	2, 071. 26
Canada.....	5, 186. 84
Germany	351. 40
India.....	482. 54
China	420. 14
Total.....	8, 993. 64

The imports of foreign lumber at Osaka amounted to a little less for the same period. Foreign lumber is used at both ports in relaying the decks of foreign constructed vessels and in refurnishing their masts and spars. A small amount of Indian teak and other high-priced woods are imported for the manufacture of furniture.

CLIMATE.

The highest maximum of temperature at Hiogo for the past seventeen years was 96° F., but that was exceptional, as the mercury seldom reaches 94°. The lowest maximum temperature during the same period was 23°; this was also exceptional, as the mercury seldom falls below 26°. The average yearly rainfall is 47.41 inches.

E. J. SMITHERS,

Consul.

HIOGO, *February 1, 1894.*

NETHERLANDS—INDIA.

JAVA.

NATIVE WOODS.

The principal woods of Java are teak, iron wood, red wood, *rasa-mala*, and *cocoa*.

Teak wood is of the same species as that of India, is of a dark yellowish color, with fine grain, and is the common wood used for all kind of buildings.

Iron wood is very much the same as ebony; hard as iron, from which it takes its name, and very heavy, sinking in water. It is proof against all insects.

Red wood is red in color, and also very hard, with fine grain. It is not used much in Java for building purposes, as it is not a durable wood.

Rasa-mala is very much like red wood in color, but much more valuable, and is used for pilings for buildings where a solid foundation is required, as it is proof against all insects, such as white ants, etc., which destroy most woods.

Cocoa wood is almost black, with yellow stripes. When old it is used by the natives, but is of little value for building, as it soon decays when exposed or when in the ground.

There are many other kinds of woods, but little is known about them, as they are not used.

KINDS OF LUMBER USED.

There are two kinds of lumber used, teak and Singapore planks, the former being preferred for its durability; the latter are used by the Chinese for building, but they soon decay and are also destroyed by the white ants.

IMPORTS OF LUMBER.

About 20,000 feet of Singapore lumber are imported monthly into this district from the Straits Settlement and from Siam.

DUTY AND PRICES.

There is no duty on lumber. There are no regular price lists issued. Teak is generally bought by the log and Singapore wood by the 100 planks. A teak log 9 feet by 15 inches sells usually for \$3, and Singapore planks for \$25 per 100, the plank being 15 feet long, 1 foot wide, and 1 inch thick.

CLIMATE.

The climate of Java may be divided into the following seasons: The East monsoon, or dry season, from April to October, is dry and hot during the day, with a temperature of nearly 90°, and damp and chilly at night, when the temperature is about 80°; the West monsoon, or wet season, prevails from October to April, when the temperature ranges from 80° to 85° during the day and night, with a very damp and close atmosphere and almost continuous rain. This season is generally much healthier than the dry season. During this rainy season epidemics are unknown.

GENERAL BUILDING

With the exception of the Javanese houses in the country, which are constructed of bamboo, nearly all the buildings in Java are of brick and lime, the doors and windows being generally of teak.

Where buildings are constructed on pilings, the native woods, such as *rasa mala*, or ironwood, are always used.

Vessels exceeding 100 tons register are seldom built of wood in Java, but such vessels as are built of wood are always built of teak.

Where wooden railway sheds are erected they are generally of teak; a few have frame of teak and Singapore wood for planking.

In former years cargoes of pitch-pine timber and spruce spars were imported from the United States, but for a number of years such importations have ceased, there being no demand for these woods.

Government warehouses built within the last few years are of iron, or iron frames and roofing, and brick walls. Private warehouses are built of brick, with tile or iron roofing.

All petroleum warehouses must be built of brick, and not less than 100 meters from any other building.

B. S. RAIRDEN,
Consul.

BATAVIA, *March 22, 1894.*

SIAM.

NATIVE WOODS.

The principal woods found in Siam are teak, rosewood, ebony, taback, and bamboo.

Teak is too well known to require a description. It is used extensively in Asia and Europe in shipbuilding, and considerable has been shipped from this port to San Francisco in 1893.

The rosewood and ebony are about like woods of this character found in other parts of the world. The former is of the finest variety, however, while the latter is somewhat inferior in color and size to a first-class grade of this wood.

Taback, in grain and color, is somewhat like the maple found in the United States. It is, however, brittle and soft and is not considered durable. There are other woods, but of minor importance.

KINDS OF LUMBER USED.

Teak and a common variety of lumber, imported from Singapore, somewhat like pine, but very much inferior, are about the only varieties of lumber used in Siam.

IMPORTS OF LUMBER.

It is impossible to give figures in answer to this question since the customs returns do not show it. Lumber is received under the head of miscellaneous goods and therefore may be classed along with anything and everything. The quantity is not large however, probably less than \$15,000 worth annually.

DUTY AND PRICES.

The import duty laid upon foreign lumber is 3 per cent ad valorem.

The prices of lumber are as follows: Square teak logs and planks range from 80 to 90 cents per cubic foot, according to dimensions; and unhewn or rough logs range in price from \$8 to \$16 per log.

"Singapore planks or lumber" (so called, as it is imported from that place, to which it is brought from the Malay Peninsula) is used here in building sheds and cheap shanties; the principal dimensions are 10 by 6 by $\frac{1}{2}$. It is sold by the 100 planks, or pieces, at from \$4 to \$5.

Rosewood is sold by weight, at from \$1 to \$2 per picul (133 pounds).

"Ebony," small sized logs—not pure black—is exported to China only, where it is used for making chopsticks. It ranges from 50 cents to \$1 per 133 pounds.

All the above prices, which are wholesale, fluctuate from 30 to 40 per cent, according to supply and demand.

CLIMATE.

The climate of Siam, while tropical, varies, for its territory extends from about 2° to 19° latitude north. The temperature in any part, however, rarely gets below 60° F., and generally averages between 90° and 100° F.

GENERAL BUILDING.

The building in Siam is limited, and is generally confined to this city. The upper classes among the natives build upon European plans, while the lower classes live in small bungalows, built of bamboo.

Shipbuilding is not carried on to any extent. The largest ships constructed are lighters of probably 100 tons displacement. The most of this kind of work is limited to building steam launches and rowboats.

EXTENSION OF THE LUMBER TRADE.

I believe it hardly possible to open up a market for American lumber in Siam, except, possibly, in some of the cheap varieties, which would necessarily have to be brought here at a low rate of freight, and it should be impervious to white ants, which are very destructive in this country.

Railroad building I have mentioned in a separate paper herewith inclosed.*

ROBERT M. BOYD,
Vice-Consul-General.

BANGKOK, *February 21, 1894.*

TURKEY IN ASIA.

PALESTINE.

NATIVE WOODS.

Palestine, within historic times, has never been a wooded country. At present there are practically no native woods suitable for building purposes. The celebrated oak and terebinth, which once covered the highlands with considerable forests, are now represented by a few dwarfed specimens of their kind. The olive still lines the hillsides and valleys, but does not furnish any building material, being used solely in the manufacture of olivewood ornaments and trinkets.

KINDS OF LUMBER USED.

There is very little wood used in the construction of buildings of any kind. Stone, which is so abundant, is used for every part of the struc-

* See Consular Report No. 165, p. 224.

ture. A very few of the modern buildings are having wooden floors and ceilings. For this purpose pine is generally used. There is no reason why native woods should not be grown to an extent to supply the local demands. The present administration cares nothing for tree culture or economy of forests. On this account, 99 per cent of all lumber used is imported from foreign countries or from other districts of Turkey.

The native woods are olive, oak, orange, and fir, which are used almost entirely for fuel.

Quite a box trade has grown up at Jaffa, boxes being necessary for the shipping of the oranges grown there. The kinds of lumber wanted for this, and also for the small demand for building purposes, are pine and fir.

IMPORTS OF LUMBER.

The value of the lumber annually imported at the port of Jaffa is from \$60,000 to \$100,000. This lumber comes from Austria, Sweden, and other parts of Turkey. Austria controls the great bulk of the import trade, sending to Jaffa nearly three-fourths of all the lumber entered there. From Jaffa it is distributed to such other places as desire it.

DUTIES AND PRICES.

The amount of duty upon imported lumber is 8 per cent ad valorem. The price ranges from \$8 to \$10 per cubic meter. From 6,000 to 10,000 cubic meters are imported annually at Jaffa.

CLIMATE.

The climate of Palestine is generally warm. There is a wet and dry season. The wet season corresponds to the winter months in our Northern States. The summers are very dry and hot.

GENERAL BUILDING.

There is some activity in general building, but there is no ship or railroad building now going on in this district.

EXTENSION OF LUMBER TRADE.

No American wood has as yet found its way into Palestine. This is probably due to the long transportation necessary; but there seems to be no reason why, with direct communication between American ports and Jaffa, our dealers should not compete successfully with those of other countries, and acquire their share of the lumber trade of Palestine.

EDWIN S. WALLACE,

Consul.

JERUSALEM, *February 3, 1894.*

SYRIA.

SYRIAN-AMERICAN COMMERCIAL RELATIONS.

The general question of increasing the exports of American lumber is of great moment in the timber-growing States, but special attention should be challenged by a country as much in need of lumber as is Syria and this entire section of the Orient.

The distance is, of course, the principal if not the controlling reason why American enterprise has not been felt in the East; but the inexhaustible supply, together with the cheapness of American lumber, should recognize no barrier, and should create a demand and provide a means of supplying that demand in any direction and in all countries. No better time could be seized for this purpose than the present.

In the old days of sailing vessels there was considerable exchange of oriental stuffs for American lumber, which came direct from the United States and was highly valued here, but the modern facilities afforded by English steamships and the more convenient French and Austrian coasting vessels have absorbed nearly all commerce with Syria and have certainly cut off direct communication with the United States. Syrian merchants fear to open up business relations so far away from home, where they are not known and where they do not know the parties with whom they would be dealing; but it is entirely within the range of strict business expectations to foresee that the closer relations fostered by the recent World's Fair and also nurtured each year by the extending tide of tourist travel, will call for a full and friendly interchange of commercial commodities between the East and West, as represented by Syria and the United States.

There is wealth in abundance here among the well-to-do classes, as represented by the Sursock Freres and by Tueni & Sons, who are leading bankers, and by Moussa Freige, by Bustros & Son, and other large dealers in eastern securities and goods. The largest dealers in lumber in Syria are Joseph Khasho & Fils and B. Audi & Co., of Beirut. These men and their associates would readily take American products and materials if brought here direct; or they would soon fall in line and import for themselves if an experiment were successfully made and they could feel sure of mutually beneficial and reciprocal transactions. This class of merchants was not represented in Chicago, as they prefer European cities for business purposes, by reason of partial residence and years of custom; but those well informed and observant Syrians, of whom Khalil Sarkis, editor of the Beirut Public Opinion (*Lisan el Hal*) is a fair representative, and who spent many months in the United States in 1893, were so profoundly and enthusiastically impressed by the resources and modern improvements of the country, as well as with its immensity and general attractiveness, that they are and will continue

to be influential and hearty factors in promoting personal and commercial interchanges between Syria and the United States.

Syria presents no greater material need to-day than that which might be fully met by American forests, and if the dealers of such great pine-growing States as Michigan and Georgia would venture so far from their base of supplies they could open up a new and valuable market for their lumber, which can easily compete with eastern woods for ornamental purposes, and for cheapness and lasting service, such as flooring, ceilings, and general housebuilding, is unequaled. Northern and Southern States could all find a demand for their rich and abundant forest supplies in a land where lumber is scarce and where fine wood-work is appreciated as it is nowhere else.

THE NATIVE WOODS.

Syria is comparatively a poorly wooded country by reason of the continued use through centuries of the native lumber and the utter carelessness of most of the changing occupants of the land in replacing the forests as they were destroyed by time and the hand of man. The famous cedars of Lebanon, which were the chief glory of the mountains in the time of Solomon, have nearly all disappeared, and of the old-time forests naught now remains except a few groves which adorn the southern slopes and northern valleys of these historic mountains.

The special varieties of native woods known in this part of the Turkish Empire are the cedar, nut, oak, apricot, mulberry, willow, poplar, and pine.

The cedar is very rare and difficult to obtain on account of the prohibition placed a few years ago by the authorities on cutting or destroying any tree, shrub, or spray in the Lebanon cedar groves.

The nut wood, which is valuable on account of its rich luster and beautiful color, is used for making rare and fine household furniture and for general ornamental woodwork. It is well adapted for carving purposes, and is frequently set with mother-of-pearl and is also used for coating objects made of common woods.

The oak is usually devoted to the manufacture of agricultural implements. It is too rare in Syria for use in general house building, and does not compare with nut wood for ornamental purposes.

The apricot wood, which has a reddish shade, is of little use owing to its poor quality.

Willow and mulberry are, also, of inferior quality, but are used in towns for making objects of little value, while in the country they find frequent use as window shutters, blinds, and baskets.

Poplar and pine beams, owing to their exceptional length, are specially used as horizontal supports for roof coverings in Damascus and the mountain villages. Pine, oak, and wild cedar are also used in the construction of the small boats used on this coast for hauling, fishing, and pleasure craft. These woods make the native lumber, but other varieties are imported.

IMPORTS OF LUMBER.

The imported woods are fir, wild cedar, red pine, beech, mahogany, nut, and pelissander or ebony. The wild cedar and the fir are preferred over all other varieties for building purposes, while the nut, beech, mahogany, and pelissander are preferred for ornamental woodwork, furniture, etc.

Fir constitutes the largest amount of lumber imported into this country. It is imported from Austria. Special care is taken with this fine wood and with forests generally in Austria, and it is their boast, after observing the waste of wood and the wholesale destruction of forests in the United States, that Austrian forests will some day be supplying the United States with lumber.

The annual imports of each foreign variety are approximately estimated to be, on an average, as follows: Fir wood from Austria, 300 wagons or car loads; wild cedar from Caramania, 90,000 pieces; red pine from Caramania, 25,000 pieces; beech from Anatolia and the Black Sea, 10,000 pieces; mahogany, ebony or pelissander, and nut woods from different parts of Europe, 40 cases, containing each 500 sheets, leaves, or pieces.

IMPORT DUTIES.

The customs duty imposed on lumber imported from foreign countries into Syria is 8 per cent ad valorem. Lumber is also subjected to other local duties upon landing, viz, municipal duty, 2 paras (2 mills) per piece; and wharf duty, 4 paras (4 mills) per piece.

PRICES.

Fir boards or planks, which usually measure 4 meters (4.3745 yards) long by 25 centimeters (9.84 inches) wide, and 25 millimeters (0.984 inches) thick, are worth from $7\frac{3}{4}$ to $11\frac{3}{4}$ piasters (27 to 42 cents).

Wild cedar wood costs from 70 to 80 cents per piece. Red pine is worth from 53 to 67 cents per piece.

These two last varieties are imported in the shape of either rafters measuring 5.468 yards long by 6.299 to 7.086 inches wide and 3.149 to 3.54 inches thick, or laths measuring 3.231 yards long by 9.84 to 11.811 inches wide and 3.937 to 5.905 inches thick.

Beams of fir or red pine imported from Trieste and Caramania, measuring 6.56 to 8.74 yards long by 9.842 to 11.81 inches wide, cost from \$2.90 to \$3.86 each, while the beams having 9.84 to 10.936 yards in length and 13.78 to 15.748 inches in width, are worth \$9.65 to \$11.58 each.

Beech laths, measuring 4.374 yards long by 4.72 inches wide and 4.72 inches thick are worth from 96 cents to \$1.12 each.

The average price of a box of mahogany or nut wood containing each 500 sheets is about \$70, while the box of pelissander (ebony) is

worth about \$200. These sheets or leaves measure as a rule 2.187 yards long by 19.68 to 23.62 inches wide.

Other kinds of native wood can not be subjected to even an approximate value, having no definite measure and having endless shapes and forms.

CLIMATE.

The great extent of Syria furnishes a variety of temperatures even in the same season, but it may be said of the eastern coast of the Mediterranean that it can boast the most favored semitropical climate of the East, if not of the world. No frost ever comes to the coast, while the peaks of Lebanon, in full view, are crowned with snow all the year. It is possible therefore for residents to obtain any temperature they may desire. Tropical trees, fruits, and vegetables flourish in the balmy air and rich soil; and while seaside residents resort to the neighboring mountains in the hot and damp summer months for health and pleasure, it is safe to affirm that this climate is as equable and healthy as any similarly situated in the world. A perfectly pure and abundant water supply from the mountains is the best safeguard for Beirut against cholera or climatic ills, and this district is comparatively free from infectious and contagious Oriental diseases. The year is divided into the dry and rainy seasons; the heaviest rains falling in December, January, and February; the annual rainfall varying from 30 to 45 inches. The thermometer ranges from 85° to 35° F. on the coast and from 80° to 30° F. in the mountains. The Lebanon slopes are temperate and agreeable in climate all the year round.

GENERAL BUILDING.

The building up of Beirut, in the past two decades, from an old Oriental town into a great modern city should designate it as the miracle city of the Mediterranean. It may well claim a great future, for its widening streets and rising halls now mark the site of what must be one of the principal emporiums of the entire East, when its railroad system is completed to the fields of the Hauran and possibly to the Persian Gulf. Its people are alive to the situation, and general building and public improvements show the result of devotion and enterprise on the part of officials and residents. Nearly every house in the city and in this district is constructed of stone on account of the scarcity of wood, as already stated, and also because the immense mounds of sand here are as convenient for mortar as the quarried boulders of Lebanon are ready for reunion into solid and shapely structures.

Shipbuilding is not a large industry here, but small sailing and fishing boats are constructed in numbers for harbor and coastwise use. The harbor itself is being very greatly improved, so that ships can come into port and land their cargoes and passengers at any season—something that is not possible in every port of the Mediterranean.

This magnificent and extensive harbor work is being done by a wealthy French company, and the same company has the concessions for the Beirut, Damascus and Hauran Railway, a line which is now being rapidly pushed to completion and which will be in operation next year. This railroad, the first in Syria, will not only furnish an easy approach for tourists to Damascus, one of the oldest cities in the world, and give its famous bazaars an avenue to the world's commerce, but will also open up the Hauran, the richest and most inexhaustible grain country in the East. This system of internal improvements is under the personal management of Count Edmond de Perthuis and M. René Emond, who are backed by abundant capital from Paris.

This new railroad runs through the most picturesque scenes of the Lebanon Mountains and touches many of the thriving and beautiful villages which are the health and pleasure resorts of Beirut residents and even of people of wealth from Alexandria and Cairo.

EXTENSION OF LUMBER TRADE.

The wonderful growth of Beirut attracts many foreign importations. Syrians welcome any improvements and machinery from the United States.

If American capitalists would send a few ships direct to this port, even at the risk of small returns at first, a rich harvest would be reaped later on. Lumber, at lower prices than the Austrian imports, offers a readier return than any other American product, because this land is almost bare of forests; and direct shipments of the superior timber of the United States should easily compete with European lumber in spite of distance.

Syrian wools, silks, fruits, licorice, and the fine workmanship of Damascus could be taken back in return, and there is no reason why a direct line of merchant steamships to Syria would not pay Americans as well as Englishmen.

Acquaintance and confidence will stir the Syrian merchants to action, and if they are once started and are assured that their wools and the products of their silk looms will find a sure market they will be glad to cross the seas and exchange products with the United States. They are particularly anxious for lumber, cheap woods for flooring, ceilings, and general building purposes.

THOMAS R. GIBSON,
Consul.

BEIRUT, *February 15, 1894.*

AUSTRALASIA.

NEW ZEALAND.

NATIVE WOODS.

The principal woods are here mentioned in the order of their usefulness and value. It has been ascertained beyond question that certain native timbers possess greater durability when grown in particular situations than in others. For example, north of the Auckland isthmus a native tree, known as hinau, affords a small proportion of heartwood, and is therefore considered of little value; in the province of Wellington the proportion of heartwood in the same tree is large, and the timber is highly valued for its durability. The Northern rata (*Metrosideros robusta*), one of the most useful woods in New Zealand, when grown in moist places produces timber of an inferior quality to that grown in ordinary situations, being liable to dry rot; in fact, the fungus is often found on this timber, grown in moist places, before it is cut down. It is well known that kahikatea (white pine), grown in dry places, affords more durable timber than when grown in swamps; although, at the same time, inferior to much of the swamp timber for bearing transverse strains. This rule applies pretty generally to nearly all the native woods grown in swamp lands here.

In view of the importance of having in all cases suitable timber for public works, it is advisable that it should be cut down under the direction of some competent person, so that unsuitable timber, whether defective from having grown in situations not naturally adapted for the particular kind required, or from not having arrived at maturity, might be rejected at the outset, thereby insuring against poor material and guaranteeing the most satisfactory results.

The names of the different trees herewith, falling as far as the order could be maintained, are given as follows: English names first, native names second, and botanical names third. In most cases the English and native names are the same.

Kauri (Dammara Australis).—The kauri is certainly the finest tree in New Zealand, and produces by far the most valuable timber. It is, however, restricted to the northern part of the north island, and does not occur in any quantity south of latitude 38°, although solitary trees are met with a little further south. It attains a height of 120 to 160

feet and upwards. Clean symmetrical trunks may be seen from 50 to 80, or even 100 feet in length, varying from 5 to 12 feet and upwards in diameter.

The timber has acquired a reputation above all other New Zealand timber from its value for masts, spars, and other purposes of naval architecture, which, about the commencement of the present century, led to its being exported for use in the British dockyards.

In this colony, except for general building purposes, its use has been chiefly confined to the north island, where there is abundant evidence of its durability for more than forty years in some of the old mission buildings at the Bay of Islands, the weatherboarding of which to this day exhibits no signs of decay. Kauri has been employed, in conjunction with totara, for the upper timbers of the Auckland wharf, the largest work of its kind in the colony, and with most satisfactory results. Braces, stringers, and tie beams are in good condition after being eighteen years in use. Recently an old pier, built twenty-three years ago, was removed, and most of the timbers, afterwards employed in the construction of a railway in the vicinity of Auckland, were found to be perfectly sound; some, of course, were decayed.

It is used for ties in coal and gold mines, for tramways, telegraph poles, and curbing for sidewalks, with the most satisfactory results. An instance is given where it had been used for eighteen years for curbing in front of the Government House in Auckland, and when removed found to be perfectly sound. It is not so well adapted for piles for marine wharves or bridges or jetties, as it is attacked by the teredo as soon as the bark is decayed; and, although squared timber will resist the teredo for a longer period, it is found that kauri is inferior for such purposes to other New Zealand woods. A steady export of kauri is carried on chiefly with Tasmania, Australia, and Mauritius; it is, in fact, the only New Zealand timber exported to any considerable extent. Kauri resembles the California redwood in nearly every particular, except that kauri is, perhaps, finer and closer grained.

Totara (podocarpus totara).—The totara is found throughout the colony, usually attaining its greatest dimensions on rich alluvial lands or on dry hillsides of low elevation.

Large specimens are found north of Auckland, but it does not occur in abundance until after passing the southern limit of the kauri, viz, 38°. Although not equal in size to the largest specimens of the kauri, trees are occasionally found from 8 to 10 feet in diameter, 4 to 6 feet being about the average size; height, 40 to 70 feet. From the extensive area which it occupies, it has been more generally used than the kauri, and is the chief timber employed for building purposes in the province of Wellington, where it occupies a similar position to that held by the kauri in the Auckland province.

According to experiments made by competent engineers it has been demonstrated that totara ranks below kauri in point of strength, at

the same time it is scarcely, if at all, inferior to it in durability. The general unanimity of opinion in its favor is remarkable, some considering it superior to kauri for general purposes, but this opinion is only found where totara is cheaper and more plentiful than kauri.

For piles for marine wharves and bridges, etc., it is regarded by those who have used it as one of the most valuable timbers known. In addition to its great durability, it has the power of resisting the attacks of teredo for a considerable period, especially if driven with the bark intact. It is said, and I believe truly, that trees felled during the growing season will resist the attacks of teredo for a longer period than those felled during the winter months. In some quarters this advantage is questioned, though it is positively stated by many who have had long experience in this respect that totaro piles driven with the bark on are absolutely free from perforation by teredines while the bark remains intact. The heart of totara will resist the teredo still longer. It frequently happens that when totara piles are driven the sap-wood is attacked and thoroughly perforated, after which the teredo dies, being unable to make any impression on the heartwood until it has been subjected for a longer period to the action of the sea water, when the mollusk resumes possession, and the destruction of that portion of the wood exposed to its ravages is a mere matter of time.

It may be fairly estimated that kauri and totara afford more than two-thirds of the indigenous timber employed for buildings and constructive works in the colony. Both are extensively used for general building purposes and exhibit practically the same amount of durability; kauri, however, is more easily worked and takes a higher finish.

Rimu (red pine).—A tree from 40 to 80 feet high; trunk, 3 to 5 feet in diameter. It is found throughout the colony, but in greater abundance in the Middle Island and in the southern part of the North Island. It is better adapted for housebuilding purposes than for constructive works. Whenever it has been exposed to the action of the weather, except in housebuilding, it has given no satisfaction. Although it can not be considered a suitable timber for outside work, its great strength and the facility with which straight logs of large dimensions can be obtained, enable it to be used with advantage for heavy beams, girders, etc., under cover.

Kahikatea (white pine).—This tree grows from 50 to 100 feet high and upwards, with trunk 2 to 4 or even 5 feet in diameter. It is found in nearly all the forests of the colony, but in greater abundance in swampy districts. It is not regarded as being of any great value, especially for outdoor work, but when used inside, if kept free from contact with the earth and in a perfectly dry situation, it lasts fairly well.

Matai (black pine).—Found throughout the colony, but not in any considerable quantities in some portions of the North Island. It usually attains a height of from 50 to 70 feet, with the trunk from 2 to

4 feet in diameter, and affords a timber of great durability, which is used for a variety of purposes, such as piles for bridges, wharves, and jetties; bedplates for machinery, millwrights' work, house blocks, railway ties, etc.

Miro (also called *black pine*).—Of similar distribution to the last, which it closely resembles. It is easily distinguished when in fruit, as the fruit is solitary instead of spicate. The cross section of the timber shows the heartwood star-shaped and irregular. It appears, however, to be specially adapted for use in positions where it is partially exposed to the influence of sea-water, and under these circumstances exhibits great durability. As a rule it is not esteemed a durable wood, except under the above conditions.

Tanekaha (*Phyllocladus trichomanoides*).—A straight, handsome tree 50 to 60 feet high, trunk rarely exceeding 3 feet in diameter; common in hilly districts in the North Island, and quite abundant in the province of Auckland. The timber is white, dense, and heavy, closely resembling in everything but size, it is said, the best crown memel of Europe. No particular tests have been applied up to the present to ascertain its strength and elasticity, but it is believed to be one of the strongest and most durable timbers in the colony. The wood appears to be specially adapted for railway ties and highway bridges, etc. An instance of its durability is given by a civil engineer, who says he has seen tanekaha used in water-tanks at the Bay of Islands after being eighteen years in use.

Cedar; Pahautea (*Libocedrus bidwillii*).—A handsome conical tree 60 to 80 feet high, 2 to 3 feet in diameter, producing a dark red close-grained timber of great durability, but inclined to be rather brittle. Found on the central ranges of the North Island, and sparingly throughout the South Island, but never below 1,000 feet. This particular timber has been largely used in the construction of railways in the South Island, with satisfactory results. It has been known to last in good condition as piles in dikes and bridges and fencing posts for over twenty years. For fence posts it is preferred to totara, but this claim is evidently ill-founded. It is, also, largely used for the manufacture of furniture.

Teatree; Manuka (*Leptospermum oricoides*).—This tree attains a height of 40 to 50 feet, with trunk 15 to 30 feet in length and 1 to 2 feet in diameter; wood, hard and dense, much used for house blocks, fencing rails, and especially valued for small marine piles. This timber is largely used throughout the colony for piles in the construction of jetties, wharves, etc., where timber of larger dimensions is not required. It exhibits greater durability in marine structures than when driven for land or fresh-water bridges. When used for land piles it has been found to decay at the ground level in about six years. On the other hand, piles in marine works in Auckland and other parts of the colony have been found to be perfectly sound after being twenty years in use.

In one New Zealand district (Otaga) it is considered to resist the attacks of teredo better than any other wood. In this respect I may remark that experience has taught that the teredo is more active and consequently more destructive in some sections of the country than in others, so that the claim of superior resisting powers against the ravages of this insect may not be well-founded. It has, also, been ascertained that piles cut during the growing season resist the attacks of teredo much longer than those cut in the winter.

Puriri (Vitex littoralis).—This tree grows to a height of from 40 to 60 feet, with a trunk from 3 to 5 feet and upwards in diameter. It has been appropriately styled the New Zealand teak; it is, in fact, closely allied to the Asiatic teak, and affords a timber of great density and extreme durability, closely resembling *lignum-vitæ* in general appearance. In durability it probably excels all other New Zealand timbers. The growing tree is subject to the attacks of the larva of the puriri moth, which bores holes sometimes three-eighths of an inch in diameter, but the durability of the timber is not directly affected; it is never attacked when once worked up. It has been largely used in housebuilding. In some houses now considerably over thirty years old the wood is still in a perfectly sound condition. Posts of the heart-wood which have been in the ground for twenty years are still sound and good.

Black birch; Hutu-Tawhui (Fagus fusca).—The true black birch is a splendid tree. It ascends the mountains from the sea level to 3,000 feet. The tree is usually from 60 to 90 feet in height, with a trunk from 3 to 8 feet in diameter. In many districts it is abundant, and forms a large portion of the forest. Its use is pretty general in upper timbers for railway construction, bridges, jetties, mine timbers, etc., and has given uniform satisfaction. It has been used for piles in marine works, and it is said to be very durable, offering great resistance to teredo.

White birch (Fagus solandii).—This tree, as also the red birch (*Fagus menziessii*), has the same distribution over the colony as the black birch and practically the same general characteristics, so far as size, elasticity, durability, and general usefulness are concerned. These woods, black, white, and red birch, are so well known that a more extended notice of their relative worth as building materials, etc., would probably afford no information that would be considered valuable.

Pohutukawa (Metrosideros lucida).—This tree is almost peculiar to the province of Auckland, where it is abundant on rocky coasts, sometimes attaining a height of 70 feet or more, but with a comparatively short trunk, 2 to 4 feet in diameter, and numerous massive, tortuous arms. Its peculiar forms, combined with its great durability, renders it specially adapted for the purposes of the shipbuilder, and it has usually formed the framework of the numerous vessels built in the northern province. For this purpose it is much esteemed, and is considered superior to the northern rata (*Metrosideros lucida*), which in many

localities enters very largely into the shipbuilders' trade. Hitherto it has not been used much in constructive works, but its density and great durability must render it valuable for the framing of dock gates, sills, etc. It has never been known to be perforated by teredos, except in the most superficial manner. It has an exceedingly rich, deep-green foliage, and blossoms about Christmas every year. The flowers are a beautiful deep red, large and rose-shaped, and very numerous. It looks very fine when in full bloom. It is only found along the seacoast of the North Island.

Ironbark; rata (Metrosideros lucida).—This is usually found in hilly situations, but descends to the sea level in the extreme south. It is a handsome tree, 30 to 60 feet high; trunk usually from 2 to 5 feet in diameter; often very short. The timber resembles the preceding, but is less dense in texture and has the advantage of splitting freely. It has been used in shipbuilding in the South Island, and has lately been utilized in the building of railway freight cars, for which its great strength and durability render it well adapted.

Rata (Metrosideros robusta).—This tree is almost confined to the North Island. Height, 60 to 100 feet; diameter of trunk, 5 to 12 feet and upwards. The timber resembles the preceding in its appearance and is equally dense and durable, while it can be obtained of much larger dimensions, so that it affords greater facilities for the construction of railway cars, etc. It is used for shipbuilding, but for this purpose it is found to be inferior in durability to the pohutukawa, although it can be more easily procured in some situations. It will doubtless in time be more frequently substituted. One peculiarity of this tree is that it begins to grow at the base of another tree around which it entwines itself like a woodbine, which it very much resembles in general appearance. It continues to encircle the larger tree, embracing it so tightly that it ultimately kills it, after which the rata continues to grow, taking the place of the original by absorption—that is, it assumes control and becomes merged with the old tree, which has lost its identity.

Hinau (Elæocarpus dentatus).—Common throughout the country. Used largely for railway ties, mine timbers, fencing-posts and rails, and occasionally for bridges. One fault found with it is that it appears to split too freely for the latter purpose. The timber is of a light dull-brown color, very tough, strong, and durable.

Kowhai (Sophora tetraptera).—Found in all parts of the colony, varying in size from a small shrub to a tree 30 to 40 feet high, with a trunk 1 to 3 feet in diameter. It is alleged that the timber closely resembles the European laburnum, and is of great strength and durability; but the supply of large timber is limited, it being often no more than a bush. It is generally used for house blocks, railway ties, fencing-posts, rails, and piles. It has been found to be perfectly sound after being in use for more than twenty years.

Maire Tawhake (Eugenia Marie).—A small tree about 40 to 50 feet high, 1 to 2 feet in diameter. Common in swampy land in the North Island. Timber compact, heavy, and durable. Used for jettying, piles, fencing, railway ties, etc.

Tawhero (Weinmannia racemosa).—This is a small tree 30 to 40 feet high, 1 to 3 feet in diameter. It is often called black birch, and is even substituted for that timber, to which it is greatly inferior in strength and durability. Its bark is much used for tanning.

Rewa-Rewa (Knightia excelsa).—This is always considered a perishable timber. It is used principally as an ornamental wood by cabinetmakers, and inlayers, and workers in fancy and ornamental woodwork generally. It is a bright, yellowish wood, with large, soft grain, capable of high polish. Generally useless, except for ornamental purposes.

Tipau (Myrsine salicina).—This has been used only in places where good timber is scarce. It is not considered durable, although highly valued for inlaying, veneering, etc.

Taraire (Nesodaphne taraire).—This is a very handsome tree 40 to 50 feet high, trunk 1 to 2 feet in diameter. Timber compact and capable of taking a fine surface, but not durable when exposed. It is largely used for shingles and is much esteemed by cabinetmakers because of its softness, even grain, and high polish when worked.

Mungeao (Tetronthera calicaris).—A small tree, most plentiful north of the Auckland Isthmus. Height about 40 feet. Timber close grained and extremely tough. Utilized largely for the manufacture of ship's blocks, etc.

Black Maire (Olea cunninghamii) and Maire (Santalum cunninghamii).—These afford fine-grained timber of great density, and are extremely durable. All are commonly called "Maire," alike by settlers and natives. Black Maire usually attains the largest dimensions, and is sometimes found 40 feet high or more. *Santalum*, of this species, is the least of the group. All the different kinds are confined to the North Island, and are most plentiful in the province of Auckland. There are three different kinds of these trees, but two only are worthy of mention here.

Kohe Kohe (Dysoxylum spectabile).—This is a handsome tree, with the trunk 2 to 4 feet in diameter; heart wood reddish, tough, but not durable. The wood is occasionally used by the cabinetmaker, but is not as well known as it deserves to be.

Titoki (Alectryon excelsum).—This tree is generally distributed through the colony, except perhaps in the extreme south. It affords a tough close-grained wood, well adapted for the purposes of the machinist, but is not durable when exposed.

Kawaka (Libocearus doniana).—A splendid tree from 60 to 100 feet high, the trunk from 3 to 5 in diameter. Up to the present the timber has not, I believe, been generally used except for fencing, but

there is no doubt in the minds of those familiar with it that it will prove equally durable with its congener, *L. bidwillii*, already noticed.

Manoao (*Daerydium colensoi*).—This is a small tree 30 to 40 feet high found in various parts of the country, but has scarcely been used except locally for house building, although well known even to the natives as being one of the most durable timbers in the colony.

Pukatea (*Atherosperma novæ Zealandiæ*).—This is a striking tree, frequently found 150 feet high, with a trunk of from 3 to 6 feet and upwards in diameter. It is common in swampy places. Timber soft, but apparently durable in water. It has been used in Auckland for boat building, but is not greatly valued.

There are several other trees that might be mentioned, but so far they have not been found to be of any commercial value, therefore their inclusion in this report would not afford any useful information.

I am much indebted to a work published by Mr. Ashley Hunter, O. E., on the "durability of New Zealand timber." The work mentioned is very complete, giving as it does in detail the durability and strength of the different woods referred to. But the details are too minute and elaborate to be included in a general report of this kind. I send with this report 13 samples of the New Zealand timber which are most esteemed for their commercial value and usefulness.*

KINDS OF LUMBER USED.

Kaure timber largely enters into all kinds of construction work in the North Islands in preference to any other kind. It is admittedly superior for general purposes, and is used in all kinds of building and constructed works, from a window sash to the masts and spars of a vessel.

For boat building, Oregon pine and spruce are occasionally used for spars and skulls. For the latter purpose the best selected Oregon pine only is used, and costs laid down here, duty paid, about 10 cents per superficial foot.

Most of the American lumber used in this county is imported from Melbourne and Sydney; but Oregon pine imported from either of the above colonies costs, laid down here, about \$6.30 per 100 superficial feet.

American hickory and ash are largely used for coach building in this country, and give the greatest satisfaction. Hickory and ash are preferred to all other woods for coach and carriage building, and would be more generally used if less expensive. It has been found impossible to use the above-mentioned woods in the shipbuilding trade owing to the cost being excessive. Small quantities of hickory and ash were imported direct from New York last year, but just how much I have been unable to ascertain. There is an average of one sailing vessel a month leaving New York for New Zealand ports, in addition to

* Samples filed in the Department.

the mail steamers, which make four weekly trips between San Francisco, Honolulu, Samoa, Auckland, and Sydney. It is possible a general agency for American lumber might be profitably established in this colony, thereby avoiding the middleman's percentage in Sydney and Melbourne, which materially increases the cost to the consumer here, a result which naturally tends to discourage the use and importation of American timber.

IMPORTS AND DUTY.

There is very little lumber imported from abroad to this colony. Last year 45,540 superficial feet were imported from the United Kingdom, valued at \$1,710. The duty on lumber is 48 cents per 100 superficial feet.

PRICES.

The following price list which I obtained from the Kauri Timber Company, of Auckland, will show the prevailing prices here. This company owns the largest sawmill in the colony, and has practically a monopoly of kauri timber.

Retail prices current.

[Subject to alteration without notice at the company's yards, Auckland and Onehunga.]

Description.	Sizes sold by	Sizes when dressed.	Kauri timber, per 100 feet superficial.		
			First class.	Medium.	Second class.
Ordinary building timber, undressed, up to 24 feet long, 1 inch or more in thickness, and not exceeding 12 inches wide	<i>Inches.</i>	<i>Inches.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Undressed boards up to 24 feet long, not exceeding 12 inches wide:			12 0	9 0	7 0
$\frac{1}{2}$ inch thick			11 0	8 0	6 0.
$\frac{3}{4}$ inch thick			9 0	7 0	5 0
Rough lining boards, 6, 9, and 12 inches by $\frac{3}{4}$ inch					4 6
Wide boards, 6d. per 100 feet superficial extra for every inch in width over 12 inches and up to 24 inches, over 24 inches by arrangement. Rough heart, when in stock, 9s. per 100 feet superficial. Surface planing, 1s. per 100 feet extra, and will finish $\frac{1}{2}$ inch less in thickness.					
Flooring boards, seasoned: Planed, tongued, and grooved	$\left\{ \begin{array}{l} 4\frac{1}{2} \text{ by } 1 \\ 4\frac{1}{2} \text{ by } 1\frac{1}{2} \\ 6 \text{ by } 1 \\ 6 \text{ by } 1\frac{1}{2} \\ 9 \text{ by } 1 \\ 9 \text{ by } 1\frac{1}{2} \end{array} \right\}$	$\left\{ \begin{array}{l} 4 \text{ by } \frac{7}{8} \\ 4 \text{ by } 1 \\ 5\frac{1}{2} \text{ by } \frac{7}{8} \\ 5\frac{1}{2} \text{ by } 1 \\ 8\frac{1}{2} \text{ by } \frac{7}{8} \\ 8\frac{1}{2} \text{ by } 1 \end{array} \right\}$	14 0	11 0	9 0
Lining boards, seasoned: Planed, tongued, grooved, beaded, or V-jointed	$\left\{ \begin{array}{l} 4\frac{1}{2} \text{ by } 1 \\ 6 \text{ by } 1 \\ 9 \text{ by } 1 \end{array} \right\}$	$\left\{ \begin{array}{l} 4 \text{ by } \frac{7}{8} \\ 5\frac{1}{2} \text{ by } \frac{7}{8} \\ 8\frac{1}{2} \text{ by } \frac{7}{8} \end{array} \right\}$	13 0	10 0	8 0
Rusticated weatherboarding, seasoned: Rusticated, covers, 7 $\frac{1}{2}$ inches	9 by 1	8 $\frac{1}{2}$ by $\frac{7}{8}$	14 0	11 0	10 0
Boat boards, specially selected, planed two sides:					
$\frac{3}{4}$ inch			13 0		
$\frac{1}{2}$ inch			13 6		

The above prices are for timber in the yard.

N. B.—Special discounts to builders and contractors. Orders for lengths can not be guaranteed, but will be supplied as near as possible. Orders for specially selected or strictly all heart, will be charged 1s. per 100 feet superficial extra. First-class timber is free from shakes or large knots, and not over one-third of any piece clean sap (free from pin holes). Medium is all or any part clean sap, free from pin holes, but in special sizes not always available. Second class is all or part sap, with pin holes and other defects. Orders for long lengths, 6d. per 100 feet superficial extra for every foot additional in length from 25 feet up to 34 feet; above that length by arrangement. Flooring and rusticated weather boards, minimum length, 8 feet.

CLIMATE.

Meteorological observations have been made ever since the founding of the colony—at first of an irregular character, and made only with a view of comparing the climate of New Zealand with that of other countries. It was not, however, until 1859 that systematic observations were undertaken by a Government department. There are over 60 stations at which rainfall and weather are recorded.

Temperature.—The climate in many respects, it is said, resembles that of Great Britain. It is, however, far more equable, the extremes of daily temperature varying throughout the year by an average of 20° only, while London is 7° colder than the North Island of New Zealand, and 4° colder than the Middle Island. The mean annual temperature of the North Island is 57° F., and of the Middle or South Island 52° F., that of London and New York, it is said, being 51° .

The mean annual temperature of the different seasons for the whole colony is: In spring, 55° ; in summer, 63° ; in autumn, 57° , and in winter, 48° . The following are the means for the two warmest and the two coldest months in the principal localities, with their differences (Fahrenheit):

Auckland, 69.6 and 53.1; Nelson, 63.6 and 45.9; New Plymouth, 64.7 and 49.03; Christchurch, 65.2 and 44.3; Wellington, 64.6 and 47.8; Dunedin, 58.0 and 43.2.

The average difference between the mean temperature of the warmest and coldest months for New Zealand is 17° .

The climate on the west coast is more equable than on the east, the difference between the average summer and winter temperatures in the northwest portion of the North Island being nearly 4° less than in the southeast, while as between the corresponding portions of the South Island the difference is about 7° . This is due to the action of the equatorial winds, which impinge on the west coast. The extent of their influence can be better appreciated by comparing the annual fluctuations of temperature on the opposite seaboard of the Middle Island. At Christchurch, on the east, the range is greater by 7° than at certain points on the west.

The following official tables show the averages which have been ascertained in respect of the temperature of the climate of New Zealand:

COMPARATIVE TEMPERATURES OF NEW ZEALAND.

I.—General abstract.

Stations.	South latitude.	Longitude east from Greenwich.	Number of years of observation.	Year.	Winter.	Spring.	Summer.	Autumn.	Difference of the warmest and coldest months.	Averages of yearly extremes.		Yearly fluctuation.
										Maximum.	Minimum.	
North Island.												
Mongonui	35 1	173 28	10	59.90	53.06	58.28	66.56	61.52	15.12	89.10	31.82	57.28
Auckland	36 50	174 51	20	59.54	52.34	57.56	66.92	61.16	16.02	88.52	33.26	55.26
New Plymouth	39 4	174 5	14	57.56	50.90	55.94	64.58	58.82	15.66	86.90	30.02	56.88
Napier	39 29	176 55	10	57.56	49.10	57.74	66.20	57.02	19.26	90.00	32.10	57.90
Wellington	41 16	174 47	14	55.58	48.74	54.50	62.24	56.66	14.76	78.44	32.18	46.26
Wanganui	39 56	175 6	3	55.90	48.71	53.31	63.31	57.12	16.70	86.00	29.00	57.00
South Island.												
Nelson	41 16	173 19	11	54.86	46.58	54.50	62.78	55.76	17.10	82.04	27.32	54.72
Hokitika	42 42	170 59	10	52.34	45.50	51.62	59.18	53.06	14.76	74.12	28.22	45.90
Bealey	43 2	171 31	9	46.76	37.40	46.04	54.86	48.56	18.18	78.08	12.38	65.70
Christchurch	42 33	172 39	12	52.88	43.52	53.24	61.52	53.60	18.72	88.16	25.16	63.00
Dunedin	45 52	170 31	17	50.72	43.52	50.54	57.20	51.80	15.30	84.74	29.84	54.90
Invercargill	46 17	168 20	14	50.36	42.26	51.26	58.10	50.00	16.92	83.84	20.12	63.72
Queenstown	45 2	165 39	3	51.01	40.01	50.92	64.02	52.31	21.25	84.60	23.21	61.39

II.—Daily range of temperature.

(Difference of the mean daily extremes.)

Stations.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Year.
<i>North Island.</i>													
Mongonui	° F. 15.48	° F. 16.74	° F. 15.30	° F. 19.08	° F. 18.18	° F. 16.92	° F. 15.30	° F. 15.66	° F. 16.92	° F. 16.02	° F. 14.58	° F. 16.74	° F. 16.38
Auckland	18.90	19.80	20.88	19.80	19.08	16.92	15.30	15.48	16.74	15.84	16.56	18.00	17.82
New Plymouth	19.62	21.60	20.16	21.42	19.44	15.84	15.30	14.40	16.56	18.00	16.74	18.54	18.18
Napier	18.72	21.60	21.78	17.82	15.12	14.94	13.86	15.30	15.12	18.00	18.18	19.08	17.46
Wellington	13.32	13.50	12.42	12.42	11.70	11.16	10.62	10.62	11.52	11.88	12.24	13.50	12.06
<i>South Island.</i>													
Nelson	20.34	23.40	20.70	21.24	17.10	17.82	19.08	19.08	19.62	21.06	21.42	22.14	20.16
Hokitika	11.34	11.16	13.32	12.60	12.78	13.86	14.58	13.68	14.76	15.66	12.24	11.52	13.14
Christchurch	17.10	18.36	16.56	17.46	17.10	16.38	14.94	16.56	16.02	16.20	18.54	19.08	17.10
Dunedin	16.20	15.66	15.66	15.12	13.68	11.52	10.44	10.62	12.06	13.32	13.68	15.30	13.68
Invercargill	22.50	21.78	22.50	22.68	18.00	16.02	17.64	16.92	19.44	22.32	21.06	21.06	20.16

Rainfall.—The rainfall varies much at the different stations from year to year. The following official table shows the rainfall for the last three years:

Station.	1890.		1891.		1892.	
	Rainfall.	Number of days on which rain fell.	Rainfall.	Number of days on which rain fell.	Rainfall.	Number of days on which rain fell.
	Inches.		Inches.		Inches.	
Auckland	46.100	176	36.040	149	41.331	177
Te Aroha	64.110	129	43.270	119	54.080	144
Rotorua	50.411	162	48.940	132	66.230	166
Wellington	45.230	165	35.125	166	67.656	184
Lincoln	14.836	104	20.575	98	27.893	124
Dunedin	27.984	155	32.734	151	47.552	190

The annual average rainfall at the 4 principal stations in New Zealand for the ten years ending December, 1892, was—

North Island:

Auckland	38.881
Wellington	48.296

Middle Island:

Lincoln	26.190
Dunedin	36.863

Daily observations have been discontinued at Hokitika, on the west coast of the Middle Island, since 1880; but for ten years, 1871 to 1880, inclusive, the annual rainfall there averaged 122.990 inches; the greatest rainfall for any one of those years having been 154.446 inches and the smallest 96.170 inches.

The greatest rainfall in any twenty-four hours during the year 1892 occurred at Dunedin, 5.400 inches, on February 8.

The observations that have been taken show that the northern part of New Zealand is within the influence of the subtropical winter rainfall, the probability of rainfall in winter in that part of the colony being twice as large as in summer.

In the south, however, the rainfall, though irregular, is distributed more equally over the year. The chief difference to be observed is that on the west coast spring rains prevail, and on the east coast summer rains; while in the middle of the colony the driest season is autumn, and in the south it is winter and spring.

The contrast between the east and west coasts in the matter of rainfall is as striking as the difference in temperature. Thus, in the North Island, Napier on the east has only half the amount of rain that falls in Taranaki on the west. But the Middle Island, with its longitudinal range of lofty mountains, exhibits this feature in a still more marked manner, for the rainfall on the west is nearly five times that on the east. The excess of precipitation on the coast is clearly illustrated by the distribution of the glaciers on the opposite sides of the range; those on the west slope have an excessive supply of snow, and descend to a line where the mean annual temperature is 50° F., while on the east slope they descend only to the mean annual temperature of 37°. The winter snow line of the "Southern Alps" on the east side is 3,000 feet and that on the west side 3,700 feet.

Periods of lasting drought are almost unknown in New Zealand, and only in two instances do the records show a whole month at any station without rain.

Winds.—The configuration of the colony—its great length from north to south, compared with its breadth, its extent of coast line, and the division of the two principal parts by Cook Strait—renders it very subject to sea breezes. As a consequence, in parts of the country there is at times much violent motion in the atmosphere, and windy days are prevalent.

Owing to the fact that most atmospheric disturbances pass from west to east, with the center of the depression to the south of New Zealand, there is a marked prevalence of westerly winds throughout all seasons, but they are much modified by the form of the land. When the center passes to the north of New Zealand, the result is that the northeast winds impinge on the east coast, bringing rain, followed by cold southeasters, with heavy storms of rain and snow during winter in the south. The more common westerly winds begin in the north-northwest, with very heavy rain on the west coast, and gradually veering to southwest, when fair bright weather invariably sets in on that coast, but the same southerly wind, sweeping along the east side of the islands, brings heavy, strong weather, locally known as "southerly busters,"

which, from the shape of the coast, reach the region of Cook Strait as southeast storms. All the other winds are either land or sea drafts, with light, fine weather, or are moderate winds produced by the circulation of the atmosphere around anticyclonic areas of high barometric pressure, which are found to be far more persistent in their influence than the fast-moving cyclonic or low-pressure areas.

The number of days on which there were gales or high winds in 1892 at each station was as follows:

Station.	Number of days on which there were gales or high winds.	Maximum velocity of wind in any twenty-four hours.	Date.
		<i>Miles.</i>	
Auckland	45		.....
Te Aroha	20		.....
Rotorua	0		.....
Wellington	65	805	Oct. 25
Lincoln	9	647	Sept. 8
Dunedin	18	530	May 12

Wellington, by reason of its position near the narrowest part of Cook Strait, is peculiarly subject to wind.

Thunderstorms.—Thunderstorms are most frequent when the changes of wind are most suddenly felt, from the moist equatorial currents to the cold polar currents of the southwest. On the west coast of New Zealand they are most frequent in spring, except southwest of Otago, where, during winter, thunderstorms are of almost daily occurrence.

Generally speaking, the climate of the colony is mild and pleasant. In the Middle Island it is, however, considerably colder than in the North Island particularly in the vicinity of the higher mountain ranges, upon which snow remains the whole year round. The climate of the North Island, or, at least, the northern portion of it, is semi-tropical in its character. Vegetation and tree foliage appear to grow without interruption throughout the various seasons. As a matter of fact, there are no well-defined seasons, such as spring, summer, autumn, and winter, in this part of the North Island. There is a wet season, which is supposed to be the winter, but in this respect it would be difficult to distinguish between summer and winter, as it rains almost as much in one season as in the other. Hence it is that there is scarcely any perceptible cessation in the growth of vegetation in consequence of the constant rainfall.

GENERAL BUILDING.

General building is not prosperous at present, owing to the depression that has prevailed here for a number of years past. But the prospect is brightening, and indications are very encouraging that in the near future the building trade will soon again assume a healthier aspect.

Large vessels are not often built in this country, the shipbuilding being practically confined to large-sized schooners and the smaller craft generally.

Railway building is very limited at present and has been since the colony has ceased to borrow. There are no new lines projected, nor is there any likelihood that there will be for some time to come. There are, however, several extensions in course of construction or completion, but even these are not being pushed very vigorously, being largely utilized for the purpose of affording work for the real needy and deserving laborers found in the ranks of the unemployed.

EXTENSION OF LUMBER TRADE.

I regret my utter inability to offer any practicable suggestions as to the best means to be adopted to promote the sale of American lumber in this colony at present. As already stated, there is a little demand for Oregon pine, spruce, hickory, and ash, but I can not at present see how sales can be increased unless the manufacturers of such timbers are prepared to establish a general agency for the colony, and even then they must be prepared to sustain a loss for a time. The woods above mentioned are well known and their superiority fully appreciated, but I question whether the establishment of an agency here, in consequence of the limited population of the colony and the small demand for such supplies, would pay. I merely offer the suggestion, but do not recommend it.

JNO. D. CONNOLLY,

Consul.

AUCKLAND, *February 24, 1894.*

NEW SOUTH WALES.

NATIVE WOODS.

The following list embraces, I think, the entire catalogue of what are now recognized as the commercial timbers of New South Wales, classified by competent authority. The first is the botanical, the second, in parenthesis, the vernacular name:

- Avicennia officinalis*, Verbenacæ (mangrove): An erect, low branching tree; timber is valuable on account of its inlocked fiber; used for knees of boats, stone-masons' mallets, and bullock yokes. Habitat, tidal estuaries, New South Wales. Height, 20 to 30 feet; diameter, 20 inches.
- Banksia integrifolia*, Proteacæ (honeysuckle): Timber coarse grained and tough; used for knees and ribs of boats, bullock yokes, etc.; takes a good polish. Hab., open and scrub forests, northern and southern coast districts, New England, etc.; plentiful. Height, 40 to 50 feet; diameter, 1 to 2 feet.
- Casuarina glauca*, Casuarinæ (swamp oak): Timber tough and strong; used for shingles, staves, and fence posts. Hab., interior and coast districts; usually in damp situations; plentiful. Height, 60 to 80 feet; diameter, 1½ to 2 feet.

- Casuarina torulosa*, Casuarinæ (forest oak): Timber handsome, sometimes remarkably heavy; valuable for cabinet work, shingles, etc.; excellent fuel. Hab., open forests from Illawarra to the Richmond River, westward to New England and Bathurst. Height, 80 feet; diameter, 2 feet.
- Cedrela australis*, Meliaceæ (red cedar): Timber very valuable, dark red, and often beautifully marked; light, easily wrought, and durable; much used and valued for furniture, patterns, and all kinds of fittings in house and shipbuilding. Hab., brush forests northern and formerly in southern coast districts; becoming scarce; efforts now being made to conserve and propagate this timber. Height, up to 100 and even 200 feet; diameter, up to 6 and even 10 feet (exceptionally).
- Dysoxylon Fraserianum*, Meliaceæ (rosewood): Timber rose scented, red, strong, closegrained, and durable; much valued for furniture-making, ship-building, turnery, and indoor work, etc.; one of the largest and best of indigenous timber trees. Hab., brush forests northern and southern coasts districts; moderately plentiful. Height, 100 feet; diameter, 4 to 6 feet.
- Eucalyptus botryoides*, Myrtaceæ (bastard mahogany): Timber strong and durable, used for felloes of wheels and boat knees. Hab., coast districts. Height, 40 to 50 feet; diameter, 24 inches.
- Eucalyptus crebra*, Myrtaceæ (grey ironbark): Timber hard, heavy, tough, strong, unlocked, and durable; used for poles and shafts of carriages, spokes of wheels, railway sleepers, etc. Hab., open forests, northern and southern coast districts, extending some distance inland. Height, 100 to 150 feet; diameter, 2 to 5 feet.
- Eucalyptus longifolia*, Myrtaceæ (woollybutt): Timber strong and durable; used for wheelwrights' work, fencing, felloes, spokes, shafts, house building. Hab., open forests, on rich alluvial flats, coastal districts; plentiful. Height, 100 to 150 feet; diameter, 3 to 5 feet.
- Eucalyptus macrorrhyncha*, Myrtaceæ (stringybark): Timber excellent for house carpentry, flooring boards, fencing, etc. Hab., open forests, chiefly west of the dividing range.
- Eucalyptus microcorys*, Myrtaceæ (tallowwood): Timber strong, handsome, and durable; very useful for building purposes, and especially for flooring boards; used also for palings, etc. Hab., coast districts. Height, 100 to 150 feet; diameter, 6 to 8 feet.
- Eucalyptus pilularis*, Myrtaceæ (blackbutt): Timber excellent for house carpentry, ship building, and for any purpose where strength and durability are required. Hab., open forests from Twofold Bay to the Hastings River, and extending a considerable distance inland. Height, 100 to 200 feet; diameter, 3 to 8 feet.
- Eucalyptus paniculata*, Myrtaceæ (she or pale ironbark): Timber much valued, hard, tough, strong, unlocked, and durable; used for bridges, sleepers, railway carriages, beams, poles of bullock drays, piles, spokes of wheels, etc. Hab., open forests, northern and southern coast districts; plentiful. Height, 100 to 150 feet; diameter, 4 to 5 feet.
- Eucalyptus populifolia* (red box): Timber hard, close grained, and durable; used for posts and building purposes, mauls, railway sleepers, etc.; handsome wood when polished. Hab., on dry, stony ridges, southern and western interior districts; moderately plentiful. Height, 40 to 50 feet; diameter, 24 inches.
- Acacia Cunninghamii*, Leguminosæ (bastard myall): Wood close grained; useful for cabinet purposes. Very homogeneous. Analysis of bark—tannin, 9.13 per cent; extract, 1.15 per cent. Hab., northern scrub forests and New England; moderately plentiful. Height, 20 to 30 feet; diameter, 9 to 12 inches.
- Acacia decurrens*, Leguminosæ (green wattle): Timber light, tough, and strong, excellent fuel. Bark rich in tannin; varying from 25 to 35 per cent. Hab., northern and southern coast districts; plentiful. Height, 20 to 50 feet; diameter, 6 to 9 inches.

- Acacia doratoxyion*, Leguminosæ (currawang): Timber dark-colored, hard, heavy tough, close-grained, and durable; used for gates, buggy poles, furniture, etc., and formerly used by the Aborigines for spears and boomerangs; leaves eaten by stock. Hab., dry, stony ridges, southern, southwestern, and western interior districts; moderately plentiful. Height, 20 to 30 feet; diameter, 6 to 12 inches.
- Acacia homolophylla*, Leguminosæ (curly yarran): Timber much sought after for turnery work. Wood hard and fragrant; very durable. Hab., central and western New South Wales. Height, 20 to 30 feet; diameter, 6 to 12 inches.
- Acacia melanoxylon*. (R. Br.) Leguminosæ (blackwood): Timber hard and close-grained; considered one of the most valuable woods; much prized for furniture, general cabinet work, carriage building, billiard tables, etc. The figured wood is cut into veneers; when polished it closely resembles walnut wood. Hab., the extreme south only of New South Wales. It is abundant in Tasmania and Victoria. Height (in New South Wales), 50 to 80 feet; diameter, 18 to 24 inches.
- Acacia Oswaldi*, Leguminosæ (umbrella bush): Timber faintly scented, dark-colored, hard, heavy, close-grained, and durable; useful for turnery and cabinet work; a dense shade tree; leaves eaten by stock. Hab., open plains, Lachlan, and other interior districts; not plentiful. Height, 15 to 20 feet; diameter, 6 to 9 inches.
- Acacia pendula*, Leguminosæ (myall): Timber hard, close-grained; in an unpolished state it preserves a peculiar fragrance of violets, and is in consequence in much request for making glove, handkerchief, and other fancy boxes, and tobacco pipes. Hab., central and western New South Wales. Height, 30 to 40 feet; diameter, 18 to 20 inches.
- Acacia penninervis*, Leguminosæ (hickory or mountain hickory): Timber hard, moderately heavy, close-grained, and durable; used for cabinet purposes, and the bark for tanning. Hab., brush forests, northern and southern coast districts and Blue Mountains; plentiful. Height, 30 to 40 feet; diameter, 12 to 18 inches.
- Acacia salicina*, Leguminosæ (koobah, or native willow): Timber close-grained, tough, heavy, dark-brown, and nicely marked; takes a high polish; used in furniture and cabinet-making. Hab., portions of central, and in western New South Wales. Height, 30 to 50 feet; diameter, 12 to 18 inches.
- Angophora subvelutina*, Myrtaceæ (broad-leaved apple tree): Timber moderately heavy, tough, and very hard when dry; used for wheel-naves, bullock yokes, posts, and rails; dresses and polishes well. Hab., northern rivers and southern coast districts. Height, 70 to 80 feet; diameter, 24 to 36 inches.
- Aphananthe phillipinensis*, Urticæ (elm): Timber light in color, close-grained; used for ceilings, linings, etc. Hab., northern New South Wales. Height, 80 to 90 feet; diameter, 15 to 18 inches; not plentiful.
- Araucaria Cunninghamii*, Coniferæ (hoop or colonial pine): Timber strong and durable, but soon decays when exposed to alternate damp and dryness. Is largely used, and as a cheap, soft wood yields spars 80 feet to 100 feet long; pale in color. Hab., northern New South Wales. Height, 150 to 200 feet; diameter, 24 to 48 inches.
- Alphitonia excelsa*, Rhamnæ (red ash): Timber hard, firm, and close-grained. Hab., brush forests of coast districts of New South Wales. Attains a height of 100 feet.
- Banksia integrifolia*, Proteacæ (white honeysuckle): Timber tough and strong; used for boat knees and ribs, bullock yokes, etc. Hab., open and scrub forests, northern and southern coast districts; plentiful. Height, 40 to 50 feet; diameter, 1 to 2 feet.
- Backhousia myrtifolia*, Myrtaceæ (grey myrtle or lavewood): Timber close-grained, hard, and durable; used for tool handles, mallets, and is suitable for turnery. Hab., banks of creeks and damp situations; northern and southern districts moderately plentiful. Height, 30 to 40 feet; diameter, 12 to 18 inches.

- Backhousia sciadophora*, Myrtaceæ (myrtle): Timber hard, close-grained; not generally used or known, but considered likely to be suitable for wood engraving, turnery, etc. Hab., mountain scrub forests, northern coast districts; plentiful in places. Height, 80 to 90 feet; diameter, 2 feet.
- Ceratopetalum apetalum*, Saxifrageæ (coachwood): Timber fragrant, light, soft, tough and close-grained; used for cabinetwork, boat and coach building. Hab., in gullies northern and southern coast districts. Height, 50 to 70 feet; diameter, 12 to 24 inches.
- Casuarina suberosa*, Casuarieæ (black oak): Timber useful for cabinetwork; used for bullock yokes, mauls, tool handles, shingles. Hab., coastal and inland. Height, 40 to 50 feet; diameter, 18 to 24 inches.
- Cupania semiglaucha*, Sapindaceæ (black ash): Timber, hard, tough, close-grained, elastic; not much used. Hab., brush forests, northern and southern coast districts; not plentiful. Height, 40 to 50 feet; diameter, 1 to 1½ feet.
- Cryptocorya obovata*, Laurineæ (sycamore, or she beech): Timber light, soft, and durable; used for flooring boards, staves, and inside house carpentry. Hab., brush forests, northern coast districts; not plentiful. Height, 60 to 70 feet; diameter, 2 to 3 feet.
- Dysoxylon muelleri*, Meliaceæ (turnip-wood): Timber red, easily wrought, and durable; used for cabinetwork, cigar boxes, and interior fittings, etc. When fresh cut it emits an odor similar to that of a Swedish turnip. Hab., brush forests, northern coast districts; not plentiful. Height, 100 to 120 feet; diameter, 3 to 4 feet.
- Dysoxylon fraserianum*, Meliaceæ (rosewood): Timber resembles "red cedar." It is beautifully marked, and suitable for cabinetwork, etc. Fragrant. Hab., northern coast districts. Height, 80 to 100 feet; diameter, 2 to 3 feet.
- Daphnandra micrantha*, Monimiaceæ (a yellow wood): Timber fragrant; yellow, when fresh, close-grained, easily wrought, and takes a good polish; used for cabinetwork, etc.; bark intensely bitter. Hab., brush forests, northern coast districts; plentiful in places. Height, 100 to 120 feet; diameter, 3 feet.
- Doryphora sassafras*, Monimiaceæ (sassafras): Timber is somewhat soft, but suitable for the inside lining of houses and some kinds of furniture, also for packing-cases; the wood is fragrant, and disagreeable to all kinds of vermin. Light in weight when seasoned, and light colored. Hab., coastal districts. Height, over 50 feet; diameter, 24 to 36 inches.
- Eucalyptus Baileyana*, Myrtaceæ (a stringybark): Timber very tough, suitable for tool handles, etc.; not much used. Hab., open 4 forests, on ridges, north coast districts; not plentiful. Height, 50 to 100 feet; diameter, 2 to 3 feet.
- Eucalyptus microcorys*, Myrtaceæ (tallow-wood): Timber of a greasy nature, strong and durable; used for flooring and general purposes, boatbuilding, etc. Hab., northern open forests, coast districts; plentiful. Height, 100 to 150 feet; diameter, 36 to 72 inches.
- Eucalyptus microtheca*, Myrtaceæ (coolibah): Timber hard, heavy, and close grained; useful in building, but not much used. Hab., plains, subject to variation, seldom on the banks of running streams; Lachlan and Darling River districts, extending to the Barrier Ranges. Height varies greatly, sometimes little better than a shrub to 50 feet.
- Eucalyptus pilularis*, Myrtaceæ (blackbutt): Timber excellent for house carpentry, bridge-planking, ships' decks, paving cubes, etc.; is coming greatly into favor, and is consequently used largely; is a valuable species of *Eucalyptus*, straight in grain, moderately heavy. Hab., open forests from Twofold Bay to the Hastings River, and extending some distance inland. Height, 100 to 200 feet; diameter, up to 15 feet (exceptionally).
- Eucalyptus polyanthema*, Myrtaceæ (bastard box): Timber remarkably tough, hard, and elastic; used for naves, felloes, and spokes of wheels, agricultural implements,

bridge work, etc. Hab., open forests, usually on banks of creeks and damp situations in the southern coast and interior districts; moderately plentiful. Height, 50 to 60 feet; diameter 2 to 3 feet.

Eucalyptus saligna, Myrtaceæ (flooded gum, blue gum): Timber strong and durable, splendid wood, in good repute for building purposes, as it does not readily take fire, and is one of the straightest in the grain and easiest to work of the *Eucalyptus* timbers; it is also used for shipbuilding, ship planks, wheel naves, felloes, etc.; timber varies; supposed due to situation and soil where growing. Hab., open forests on banks of creeks, and rich, moist, alluvial soil; northern and southern coast districts; plentiful. Height, 100 to 120 feet; diameter, 36 to 60 inches.

Eucalyptus sideroxylon, Myrtaceæ (red ironbark): Timber highly esteemed for strength and durability, and much used for large beams, girders, sleepers, draw-poles, fuel, and other purposes, in which strength and durability are required. Hab., open forests northern and southern coast districts, and central districts, New South Wales; plentiful. Height, 100 to 150 feet; diameter, 3 to 5 feet.

Eucalyptus sideroxylon, Myrtaceæ (munga): Timber soft in character when compared with other ironbarks; is not plentiful, being found in small belts or patches; chiefly in central New South Wales, Macquarie, and Bogan River districts; does not grow to any size.

Eucalyptus tereticornis, Myrtaceæ (red gum): Timber hard, heavy, close grained and durable; used for posts and rails of fences; bridge, house, and ship building, wheelwrights' work, etc. Hab., open forests, northern and southern coast districts. Height, 80 to 100 feet; diameter, 36 to 48 inches.

Eucalyptus virgata, Myrtaceæ (mountain ash): Timber tough, durable, and elastic, splits freely; used for staves of casks, shingles, poles, shafts of drays, palings, rails, and rough buildings. Hab., open forests, southern coast districts and Blue Mountains; plentiful. Height, 100 to 150 feet; diameter, 3 to 4 feet.

Eugenia Ventenatii, Myrtaceæ (myrtle): Timber close grained and tough; used for tool handles, ribs of boats, and the flooring boards of verandas. Hab., brush forests, Hastings, Macleay, Clarence, and Richmond rivers. Height, 40 to 60 feet; diameter, 24 to 36 inches.

Flindersia Oxleyana, Meliaceæ (light yellow wood): Timber strong, durable, fine grained, and of good color; used in boatbuilding, cabinetwork, and to many purposes to which cedar is applied; useful wood for fancy work, owing to pale yellow color; resembles beech; suitable for hand-screen making, buggy shafts, etc.; not plentiful. Hab., northern brush forests, New South Wales. Height, 80 to 100 feet; diameter, 24 to 42 inches.

Flindersia Bennettiana, Meliaceæ (bogum-bogum): Timber close grained, useful for saddle-making, staves, etc.; not much used. Hab., northern districts, New South Wales. Height, 70 to 90 feet; diameter, 18 to 26 inches.

Flindersia Schottiana, Meliaceæ (ash): Timber hard, close grained, prettily marked, and of a pale yellow color; used for shingles and staves and for cabinetwork. Hab., Hastings River, New South Wales. Height, 30 to 60 feet; diameter, 18 to 30 inches.

Frenela robusta, Coniferae (white or common pine): Timber is very full of knots, polishes well, and shows to advantage; has a camphoraceous odor; varies in color from light to dark brown; is very durable, and resists white ants to a great extent; of a brittle nature; used for building in central districts, lining-boards, and ceilings. Hab., central and western New South Wales. Height, 60 to 70 feet; diameter, 18 to 24 inches.

Frenela Macleayana, Coniferae (Port Macquarie pine): Timber light and useful; used for indoor purposes, weatherboards, deals, battens, etc. Hab., northern New South Wales. Height, 20 to 30 feet; diameter, 6 to 12 inches.

- Gmelina Leichhardtii*, Verbenaceæ (white beech): Timber strong, durable, and easily worked; prized for decks of vessels, flooring of verandas, etc.; light colored, and useful for turning and furniture-making; one of the most useful of our timbers. Hab., brush forests, northern and southern coast districts; not very plentiful. Height, 120 to 150 feet; diameter, 36 to 60 inches.
- Melaleuca leucadendron*, Myrtaceæ (white tea-tree): Timber hard, heavy, and close-grained; said to be imperishable underground. Hab., northern and southern coast districts; plentiful. Height, 50 to 60 feet; diameter, 24 to 36 inches.
- Melia composita*, Meliaceæ (white cedar): Timber soft, easily worked; wood from matured trees is found to be fairly durable; splits easily; handsomely marked and polishes well; much valued for staves and the finer kinds of coopers' work; a beautiful flowering and foliaged shade tree; suitable for planting in public parks in warm situations. Hab., brush forests, northern coast districts; moderately plentiful. Height, 80 to 100 feet; diameter, 3 to 4 feet.
- Olea paniculata* (marble wood): Timber hard, close grained, and durable; heartwood nicely mottled; used for staves, and suitable for cabinetwork and turnery. Hab., brush forests, northern and southern coast districts; not plentiful. Height, 40 to 50 feet; diameter, 2 to 2½ feet.
- Petalostigma quadriloculare*, Euphorbiaceæ (native quince): Timber hard, close grained, and durable; prettily marked, but not used. Hab., open forests on margins of brush forests, northern coast districts; not plentiful. Height, 10 to 12 feet; diameter, 6 inches.
- Rhodamnia argentea*, Myrtaceæ (white myrtle): Timber hard, fine grained, and durable; suitable for carving, turning, fancy, and cabinetwork, etc. Hab., brush forests, northern coast districts; moderately plentiful. Height, 80 to 100 feet; diameter, 2 to 3 feet.
- Syncarpia leptopetala*, Myrtaceæ (turpentine myrtle): Timber hard, heavy, and durable; used for turnery, etc. Hab., gullies, northern coast districts; not plentiful. Height, 50 to 60 feet; diameter, 24 inches.
- Syncarpia laurifolia* (turpentine): Timber hard, heavy, strong, and durable; used extensively for piles; used also for posts, shipbuilding, sleepers, and general building purposes; a difficult wood to burn, and very durable underground. Hab., in gullies, northern and southern coast districts, and Blue Mountains; plentiful. Height, 100 to 150 feet; diameter, 36 to 60 inches.
- Stenocarpus salignus*, Proteaceæ (red silky oak, beefwood): Timber highly appreciated and now scarce; used for making furniture, picture frames, walking sticks, veneers, and the finer kinds of coopers' work. Color, red-brown, and somewhat mottled; somewhat hard in texture, but easily worked. Hab., northern coast districts and Illawarra, New South Wales. Height, 30 to 50 feet; diameter, 18 to 24 inches.
- Tristania conferta*, Myrtaceæ (brush box): Timber hard and durable, heavy, and close grained; used for bridge and housebuilding, shipbuilding, plow beams, wheelwrights' work, etc., and largely planted for shade purposes in towns. Hab., open forest ridges, northern coast districts. Height, 80 to 120 feet; diameter, 36 to 60 inches. Plentiful.
- Tristania suaveolens*, Myrtaceæ (broad-leaved water gum): Timber remarkably strong, elastic, tough, close grained, and durable; used for mallets, tool handles, cogs for wheels, posts, etc. Hab., open and brush forests, northern coast districts; moderately plentiful. Height, 60 to 80 feet; diameter, 1½ to 2 feet.
- Tarrietia argyrodendron*, Sterculiaceæ (ironwood): Timber white, close grained, hard, and durable; used for building purposes and staves. Hab., brush forests, northern coast districts; plentiful. Height, 80 to 100 feet; diameter, 3 to 4 feet.
- Vitex lignum-vitæ*, Verbenaceæ (lignum-vitæ, or white beech): Timber valuable and useful, durable, close grained, and does not shrink in drying, much used for decks of vessels and veranda floors; suitable for turnery and cabinetwork.

- Hab.*, brush forests, northern coast districts; not plentiful. Height, 70 to 80 feet; diameter, 24 inches.
- Zanthoxylum brachyacanthum*, Rutaceæ (satinwood, a yellow wood): Timber bright, soft, silky, close grained, easily wrought; used for cabinetwork, etc. *Hab.*, brush forests, northern coast districts, New South Wales; not plentiful. Height 40 to 50 feet; diameter, 10 to 15 inches.
- Castanospermum australe*, Leguminosæ (black bean, or Moreton Bay chestnut): Timber resembles walnut wood; is dark colored, handsome, close grained, and durable; used for cabinetwork; is coming into more general use than formerly, as its qualities are better known; a valuable timber and shade tree, and very ornamental; stock-owners destroy this tree, owing to their cattle being poisoned by eating its seeds; the seeds are soaked in water, roasted, and eaten by the aborigines. *Hab.*, brush forests, northern coast districts; moderately plentiful. height, 120 to 130 feet; diameter, 4 to 5 feet.
- Dysoxylon Fraserianum*, Meliaceæ (rosewood): Timber resembles red cedar. It is beautifully marked, and suitable for cabinetwork, etc.; fragrant. *Hab.*, northern coast districts. Height, 80 to 100 feet; diameter, 2 to 3 feet.
- Dysoxylon Muelleri*, Meliaceæ (red bean): Timber red, easily wrought, and durable; used for cabinet-work, cigar boxes, interior fittings, etc. When fresh cut it emits an odor similar to that of a Swedish turnip. *Hab.*, brush forests, northern coast districts; not plentiful. Height, 100 to 120 feet; diameter, 3 to 4 feet.
- Eucalyptus rostrata*, Myrtaceæ (red gum): Timber strong, hard, heavy, close grained, and durable; almost impervious to white ants and teredo; used for ship and boat building; piles, flooring boards, weather boards, planking, railway sleepers, bridges, wharves, and building purposes generally; one of the best and most valuable hardwoods. *Hab.*, open forests, chiefly on river banks; and rich alluvial flats subject to inundation; Murray and Edwards rivers, and most of the rivers of the interior; plentiful. Height, 100 to 200 feet; diameter, 3 to 5 feet.
- Elæocarpus grandis*, Tiliaceæ (mountain ash): Timber, white, tough, soft, close grained, and easily wrought; used for building purposes, etc. *Hab.*, brush forests, northern coast districts; moderately plentiful. Height, 100 to 150 feet; diameter, 4 to 5 feet.
- Gmelina Leichhardtii*, Verbenaceæ (beech): Timber strong, durable, and easily worked; prized for decks of vessels, flooring of verandas, etc.; light-colored, and useful for turning and furniture-making; one of the most useful of our timbers. *Hab.*, brush forests, northern and southern coast districts; not very plentiful. Height, 120 to 150 feet; diameter, 36 to 60 inches.
- Owenia cepiodora* (onion wood): Timber valuable for cabinetwork; of a red color and prettily marked, sometimes very handsome; is durable; when freshly cut it emits a peculiar odor. *Hab.*, brush forests, northern coast districts; not plentiful. Height, 100 to 124 feet; diameter, 3 to 4 feet.
- Rhus rhodanthema*, Anacardiaceæ (yellow cedar): Timber close grained and durable; takes a good polish; suitable for carving, turning, cabinet and fancy work. *Hab.*, brush forests, northern coast districts; not plentiful. Height, 50 to 60 feet; diameter, 2 to 3 feet.

Of course there are many other timbers in New South Wales, but believing it is the design of the Government to have reports cover only the space necessary for information which is of practical use, I selected those varieties now having commercial value.

Besides the above native woods, there are large quantities of pine, fir, cedar, and redwood consumed in this and other Australian colonies, though, owing to the prevailing dullness and the large stocks on hand, the demand is very light.

LUMBER MOST USED.

For uses requiring long and strong timbers, say for scaffolding, joists, rafters, and the like, especially where uniform strength is needed without too great weight, "Oregon pine," or what is known in the Pacific States as "fir," is most highly prized and most extensively used. It comes chiefly from Washington and Oregon, and in the rough state.

Redwood is a favorite timber for inside work, as it works so much more easily than the native woods and finishes as finely. It is imported in the rough and dressed at the local mills.

As a rule the native woods of Australia are very hard and heavy. While many of them take a very fine polish and can be richly finished, they are hard to work and to handle. Ironbark stands first on Lloyd's estimate as a shipbuilding timber.

For flooring the Kauri pine of New Zealand, of which there are considerable forests, is regarded as very good, and is much in use, though it is inferior to the fir of the Pacific States when the latter is sawed with proper regard to the grain. The Kauri pine has little strength, as there seems to be a lack of continuity of fiber, and it is certainly less durable than fir.

There are complaints that the Oregon pine (fir) flooring, when worn sometime, splinters or scales up, but that comes from its being sawed without proper regard to grain. The Australians want the best of everything, and I feel confident that the long, clear flooring of the Pacific Northwest fir, sawed properly and dressed to, say 4 inches in width, would take the market—when there is one.

For cabinetwork, carriages, carts, vehicles, and most machinery the strong and heavy native woods are chiefly used, while for cooperage the timbers of New Zealand and Tasmania are preferred.

IMPORTATION OF LUMBER.

The importations of 1893 were 8,118,925 superficial feet of dressed lumber, valued at \$271,036, and the importations were distributed as follows:

Whence imported.	Quantity.	Value.	Whence imported.	Quantity.	Value.
	<i>Sup. feet.</i>			<i>Sup. feet.</i>	
United Kingdom.....	1,169,123	£6,728	Germany.....	2,850	£131
Victoria.....	743,674	7,522	Norway.....	3,180,969	14,320
Queensland.....	11,285	146	Sweden.....	1,216,590	9,430
South Australia.....	541,977	6,222	United States.....	1,055,617	9,197
New Zealand.....	166,838	1,404			
Canadian Dominion.....	100,000	600	Total.....	8,118,925	55,700

Of rough or undressed lumber (all of what we in the United States call "lumber" is here called "timber," and it is reckoned by the hundred superficial feet instead of by the thousand) there was imported in the

same year 59,543,868 feet, valued at \$1,729,396, and the importations were distributed as follows:

Whence imported.	Quantity.	Value.	Whence imported.	Quantity.	Value.
	<i>Sup. feet.</i>			<i>Sup. feet.</i>	
United Kingdom.....	431,248	£3,627	Brazil.....	2,219	£10
Victoria.....	3,812,164	14,676	China.....	47,522	450
Queensland.....	708,334	5,967	Germany.....	840	10
South Australia.....	19,224,569	149,915	Japan.....	64,700	495
Tasmania.....	925,959	7,017	New Caledonia.....	3,344	21
New Zealand.....	11,810,760	51,836	Norway.....	938,189	5,538
Canadian Dominion.....	2,614,305	9,700	South Sea islands.....	10,706	149
Fiji.....	12,135	15	United States.....	19,921,796	107,493
Hongkong.....	984	3			
New Guinea.....	3,000	9	Total.....	59,543,868	357,048
Borneo.....	11,094	117			

Upon careful inquiry I find that a great portion of the timber for which South Australia has the credit, in the tables of importations, is really from Oregon and Washington, and taken to the Broken Hill mines in New South Wales through South Australia, entered at Adelaide or Fort Price.

DUTY.

There is an import duty of 3s. per 100 superficial feet, or about \$7.20 per 1,000 on dressed lumber, and \$3.60 per 1,000 on rough lumber. This duty does not apply to ash, hickory, oak, sycamore, or sandal wood, when undressed. On palings the duty is 1s. per 100; laths, 9d. per 1,000; shingles, 1s. per 1,000; pickets, 1s. per 100 feet, superficially dressed; doors, sashes, and shutters, 2s. each.

PRICES.

At present (March, 1894) times are dull, consumption is very light, the stocks on hand are large, and prices are low. "Oregon pine," which means the Puget Sound, or Oregon, fir, is worth but 8s. per 100, or say \$20 per 1,000 in the local market, by cargo. Freights are now very low, but 27s. 6d., or \$6.87 per 1,000, and with a duty of \$3.60 per 1,000, it leaves but \$9.53 per 1,000 for the purchase of the lumber, and the profit, insurance, commission, etc. This is a poor outlook for our Pacific slope lumber trade in Australia.

Redwood is worth about 12s. per 100, or about \$30 per 1,000, rough, and the demand is light.

Redwood shingles are worth from 65 to 75 cents per 100, with small and rather decreasing demand.

The native hard woods are worth from \$24 to \$36 per 1,000, according to kind and quality. This is about the price of imported hard woods also, though good hickory is higher in small quantities.

It may be well here to remark that the prices above given for "Oregon pine," \$20 per 1,000, is low, but it is the price (given me by a custom house officer and an American shipmaster) received for a cargo just from Port Blakely, on Puget Sound. I incline to think this price

very low, possibly the lowest reached but no lower than given me by local dealers.

CLIMATE.

Sydney is situated in latitude $33^{\circ} 51'$ south and longitude $151^{\circ} 13'$ east. It is well known by all observers that the climate in the south temperate zone is more equable and salubrious than in like latitudes in the northern hemisphere, and while, owing to local causes, there are great differences in the humidity of districts not widely separated, there is a remarkable evenness of temperature ranging through the seasons.

I think the following table taken from "The Year Book of Australasia" for 1893 answers the question in a most concise form:

Climate of New South Wales during the year 1892.

[Contributed by H. C. Russell, esq., B. A., C. M. G., F. R. S., F. R. M. S., etc., government astronomer for New South Wales.]

Stations.	Latitude, south.	Longitude, east.	Altitude.	Barometer at 32° and mean sea level.	Temperature.					Mean 9 a. m. Cloud.	Prevailing wind.	Rainfall.		
					Mean in shade.	Mean humidity.	Mean maximum in hottest month.	Mean minimum in coldest month.	Mean daily range.			Total.	Number of days.	Percentage (+) above or (—) below average.
	° '	° '										<i>Inches.</i>		
Albury	36.6	147.0	572	30.039	60.8	74.6	93.0	35.1	24.9	4.6	E.	29.530	103	+3
Armidale	30.32	151.38	3,278	30.047	56.5	74.8	82.6	32.3	23.7	4.9	W.	44.930	116	+40
Bathurst	33.24	149.37	2,200	30.070	56.1	73.7	89.5	26.6	28.9	4.5	SW.	31.290	117	+30
Bourke	30.3	145.58	349	30.055	70.0	69.3	107.7	38.1	29.5	2.1	NE.	8.150	37	-53
Cape St. George.	35.12	150.45	175	30.075	61.3	73.6	75.3	46.4	13.7	6.0	SE.	57.580	123	+10
Cooma	36.12	149.9	2,637	30.038	53.3	75.8	83.9	27.3	25.7	6.6	NW.	23.760	112	+20
Deniliquin	35.32	145.2	320	30.108	61.6	73.1	97.7	31.3	32.7	3.5	SW.	16.910	75	-2
Dubbo	32.18	148.33	863	30.092	63.4	71.4	94.8	34.5	27.4	2.7	E.	28.600	90	+26
Eden	37.0	149.59	107	29.941	59.7	83.1	75.3	44.6	14.9	5.5	SW.	41.680	127	+15
Forbes	33.27	148.5	808	30.068	62.5	75.7	95.2	36.2	24.6	1.3	NW.	25.240	86	+18
Goulburn	34.45	149.45	2,129	30.035	56.7	76.8	84.8	32.9	23.1	3.5	W.	25.680	89	-4
Grafton	29.43	152.56	27	.....	68.9	.....	91.6	44.8	24.2	3.6	SE.	52.840	111	+38
Hay	34.30	144.56	305	30.020	63.7	73.4	95.3	36.5	27.0	3.3	S.	15.550	81	+2
Inverell	29.48	151.10	1,953	30.034	60.8	72.9	85.4	36.6	20.3	3.9	S.	42.420	99	+35
Kiandra	35.52	148.32	4,640	30.067	45.3	74.9	71.5	22.8	19.5	4.9	NW.	56.990	159	-12
Maitland	32.47	151.35	98	.....	59.4	.....	86.3	33.9	25.7	4.1	SE.	53.690	126	+56
Mount Victoria.	33.36	150.15	3,490	29.958	53.2	75.0	76.5	34.9	17.9	5.7	W.	49.700	132	+33
Mudgee	32.35	149.35	1,500	.....	63.7	79.0	92.1	36.0	24.9	4.4	W.	34.250	87	+27
Newcastle	32.55	151.50	34	30.049	63.6	72.0	78.7	47.1	12.5	4.9	S.	71.790	215	+49
Orange	33.18	149.9	2,891	.....	55.8	.....	81.5	35.4	17.5	4.2	NE.	42.270	121	+9
Port Macquarie.	31.25	152.54	49	30.027	63.4	84.0	80.0	44.0	17.2	4.2	SW.	80.870	0	+27
Sydney	33.51	151.13	146	30.053	62.5	78.1	78.3	46.5	12.4	5.3	NE.	69.256	189	+37
Wagga Wagga ..	35.8	147.24	615	30.111	61.7	74.0	99.0	31.1	32.1	3.8	E.	20.910	88	-10
Walgett	30.2	148.10	522	30.079	68.5	67.0	98.8	40.0	24.8	2.4	N.	14.490	64	-30
Warialda	29.35	150.37	1,106	.....	61.6	73.0	89.7	33.7	26.6	3.3	NW.	37.460	79	+28
Wentworth	34.8	142.0	144	30.159	60.9	73.0	89.9	32.3	27.2	3.8	NNE.	12.910	66	+7
Wilcannia	31.31	143.23	246	30.044	64.4	56.0	101.9	32.2	33.7	2.6	S.	7.890	37	-32
Wollongong	34.25	150.56	67	30.040	61.9	71.0	80.1	43.9	19.1	4.1	SW.	58.330	120	-36

GENERAL BUILDING.

There is very little building of any kind now going on in New South Wales. In the rural districts there is little imported lumber used, even

in prosperous times, as local mills furnish native timber cheaper than the imported article can be procured.

For fencing, the material is prepared by splitting the free grained gums; for building, either brick or native wood is used; while for roofing, corrugated iron is now chiefly preferred. This material is much cheaper than slate, considerable cheaper than shingles, and with the convenience with which it is placed, as well as transported, it is rapidly becoming the roofing material of the country. Even in the cities, many fine buildings are roofed with it, and nearly all the porches, verandas, barns, and outhouses are covered with this not unattractive and very suitable material.

There are practically no buildings going up in the cities of Australia anywhere, nor can there be in the near future. I am informed that in Melbourne there are 20,000 empty houses waiting tenants, and surely of the 83,000 dwellings in Sydney there are a few thousand beyond the necessities of the population. Most of the timber used in the mines is from the native forests, though in former days there was considerable Oregon pine used at Newcastle and Broken Hill. The demand at Broken Hill still continues, as I am informed that several vessels during the last few months arrived at South Australia with lumber from the Pacific coast for these mines.

There is no shipbuilding proper in New South Wales, but for the numerous small craft extensively constructed here, the long, strong, and clear timbers from the Oregon pine are most available and considerably used.

There is very little railroad building going on in this colony, and the timbers used are wholly native. There are probably nowhere timbers so durable or suitable for railroad ties, called here sleepers, or for bridge building, as the local native woods. Some of these timbers have many merits; not only are they very strong and very durable, but some varieties, notably iron bark, are almost fireproof.

For car-building purposes the native woods are well adapted. They finish very smoothly, are strong, and take a fine polish.

TRADE OUTLOOK.

As to how we may increase our lumber trade with Australia, I would first remark that there is little hope of increase until a revival of business.

However, I would suggest that it is in our power to secure a greater portion of the existing trade by beating our competitors in quality. While laying no claim to special knowledge on that point, I have carefully examined the lumber from many of our States and from many countries, and I feel quite confident that the Oregon pine (fir), carefully selected from the forests of western Washington or Oregon and sawed with judgment, will furnish a class of lumber which for clearness,

strength, and soundness is very far superior to any of the soft woods that come from Norway or New Zealand. The dealers and consumers here are good judges, and they want the best there is. With them it is cold business.

Then it seems to me that owing to the hardness and great weight of native woods here, our light, tasteless, and odorless spruce should be used exclusively for fruit-packing purposes, whether the package be a crate, a box, or a barrel. Considering lightness, neatness in color, tastelessness, and all the qualities necessary for packages for eatables, I believe the Pacific slope spruce much superior to any other material available for this market.

There is another suggestion I venture to make regarding a possible increased lumber trade in these colonies, and that is a reciprocal exchange of timbers or remission of duties. Our merchantable timbers are soft; theirs are hard. Ours are suitable for cottages, buildings, floorings, scaffoldings, joists, shipbuilding, etc., while theirs are superior for pavements, furniture, fine implements, etc. Sydney is better paved than any American city, save Washington. It is almost entirely paved with wooden blocks. A careful test of many years has been made. Experiments with different woods, as well as various metal and stone cubes, on the chief streets where there is the heaviest and most continued traffic, have been made, and the wood pavement has proved its great superiority.

It seems that turpentine, black butt, mahogany, and tallowwood have proved the better woods for the purpose. As compared with blue-stone cubes, the stone wears at the rate of 1 inch per year, and the better woods but one-twelfth of an inch. Besides being much more durable, they are less noisy, less destructive to vehicles, easier on horses, and in every way more desirable.

Add to this the fact that they are also cheaper, and that a wood pavement makes a drive superior to asphalt, and why should our people not enjoy this luxury? There may be climatic objections in many American cities, but there certainly are not any on the Pacific coast.

Considering population, the people of New South Wales are the greatest commercial people on earth. They believe in trade. They are anxious for a market for every merchantable product of the country. I believe if our people would open up a market for the hard woods of this country, if they would experiment with and finally use this New South Wales paving material, which I believe to be the best in the world in suitable climates, it would result in reciprocal trade and give our lumber dealers the market of this country.

There are two other suggestions that I desire to make relative to our trade with Australasia, a little outside of the circular instructions, but I think not so foreign to the subject as to subject me to criticism, and one is that our people should be not only very careful in the shipment of all articles for this market, but they should be sure that every article

is as good as represented and fully equal to the sample. A few unscrupulous or careless dealers have aroused a feeling of suspicion against our countrymen, so there is a little prejudice to overcome and our competitors are not slow in using the advantage given them. The merchants of England claim these markets as their right, and the national pride, if not prejudice, of these people predisposes them to favor their own countrymen, while France and Germany are striving, by subsidies and low prices, to increase their trade here, so that Americans are compelled to rely upon the merits of their wares and the enterprise of their agencies.

But what is more needed to extend our trade than anything else, other things being equal, is that our strong exporting firms, merchants, manufacturers, etc., should establish agencies in this country, with active, wide-awake, honest, enterprising, Americans in charge, to handle and display American goods and keep American ideas, wares, enterprise, and inventions constantly before the people.

In transportation we have the advantage over any other country, and our people should have, and will have when they deserve it, 40 per cent of the trade of Australasia, instead of 3 per cent as now.

GEO. W. BELL,

Consul.

SYDNEY, March 27, 1894.

SOUTH AUSTRALIA.

NATIVE WOODS.

Apart from other characteristics, the trees of South Australia are not as tall as those which are found on the northeast and west of this territory. The eucalypti do not exceed 100 feet to 120 feet in height. Among the twenty species of eucalypti which appear in the extra-tropical parts of south Australia there are only a few varieties which are held in special estimation.

They are commonly called red, white, and blue gum, stringy bark, and peppermint. These are used for various purposes, such as building, rough carpentry, wheelwright's work, and for fuel. The red gum (*Eucalyptus rostrata*) is very hard and solid, weighing about 62 pounds to the cubic foot, and when properly seasoned is impervious to the white ant; it is, however, most difficult to work up. The stringy bark (*E. obliqua*) has its habitat principally on the hills. It sheds its bark in long fibrous strings, which loosen and droop down as they become detached by the newly-formed bark underneath. This process gives to the trunks of the trees a ragged, untidy appearance. The stringy

lark grows so straight that the young trees are much used for scaffold poles, spars, etc., in which length, strength, toughness, and straightness are required. The wood of these trees makes excellent palings and shingles because it splits evenly and readily. It is also used largely for fencing rails and sometimes posts, but it soon perishes in the ground, and the white ant destroys it rapidly. As fuel it is not good. When dry it burns away fiercely; when green or damp it can with difficulty be got to burn at all, unless mixed with other more combustible wood. The blue gum (*E. dumosa*) is valuable for all sorts of work, and for fuel as well. The white gum (*E. viminalis*) is generally inferior in durability; it does not resist white ants, and when green or damp it is worse even than stringy bark as fuel. The peppermint (*E. odorata*) is a hard wood, useful for ordinary purposes, and very serviceable as fuel.

The red gum is widely distributed. It is never far distant from water, and its stately branches are almost invariably noticeable on the margin of creeks and water courses in the north.

All eucalypti, indeed most Australian trees, are remarkable for their naked appearance. The boughs in their gray outlines are always distinctly traceable through the foliage, which is smooth and shiny. From a distance the leaves scarcely seem to depend from the boughs. The trees for their size throw little shade, and the thick branches of some varieties often drop off suddenly on a perfectly calm, hot day, to the certain destruction of anything that may happen to be beneath. These trees give a special monotony to the scenery of South Australia.

The wood of the acacia is useful only for cabinet work, but the blackwood (*Acacia melanoxylon*) has better qualities for purposes of that nature. This tree, however, is common in the southeast, while it is rare near Adelaide. It is more common still on the eastern side of the border. Another species of acacia, the wattle of the colonists (*A. pycnantha*), at one time neglected, but now largely cultivated, is valuable for the gum which freely exudes from it. Its bark, bought in England as mimosa bark, is one of the best of the kinds used for tanning purposes. There are other kinds of acacia which are also valuable for tanning, but none are equal to the wattle.

The she-oak (*Casurina stricta*) is remarkable in appearance. Its fronds do not shape as ordinary leaves; they appear as continuations of the branches. It never reaches any great height, and is almost funereal in aspect. The wind rushing or sighing through these trees causes a mournful whistling or wailing sound, according to its force. All kinds of cattle eat the fronds greedily. The wood is tough and splits tolerably even. It makes excellent spokes for wheels, handles for hammers, etc., and is used also for turning work and in cabinet-making. As fuel it is excellent.

The tea trees (*Melaleuca* and *Leptospermum*) mostly inhabit low damp situations, and are to some extent valuable because of the durable nature of their wood when used underground, or perhaps in water. It

is close-grained and hard, and when dry heavy. It is generally sound at the heart. The wood of the native pines of this province (*Frenela robusta* and *F. rhomboidea*) are not durable, and are little used except for fences or for fuel. The *Banksia marginata*, or honeysuckle, is occasionally used for cabinet work, and the *Myoporum acuminatum*, although soft, is tough, and forms excellent knees for boats.

The late Dr. Schomburgk, director of the botanic garden, Adelaide, from whose writings the foregoing account has been mainly derived, remarks upon the absence of native edible fruits, "of which there are none deserving the name except a few berry-bearing shrubs belonging to the orders *Epacridæ* and *Santalacææ*, *Astroloma* and *Leucopogon*, the principal species of which, the native currant of the colonists (*Astroloma humifusum*) and the so-called native peach, with a succulent pericarp and a hard, bony, much pitted endocarp (the quondong), are all South Australia can boast of. There is also a deficiency in eatable root-bearing plants." There is one of which little notice has been taken—the muntree. It grows along the ground, and produces a berry of a size somewhat smaller than that of the ordinary Barcelona nut. The smell and taste are strong, and like that of an apple. It may be found on the banks of the Inman and Hindmarsh rivers, on Yorkes Peninsula, and in many other spots where sandy soil and moisture exist. The shoot withers rapidly when separated from the parent plant.

One peculiarity of the eucalypti has not been noticed, and that is their extraordinary vitality. As long as a strip of bark is continuous from the ground up to the branches, the tree lives. Thus trees many feet in diameter at and above the bole, hollowed out by the ravages of insects or by fire, leaving cavities large enough to shelter several persons, live and put forth their leaves as if nothing had ever occurred to interfere with their growth. Dr. Schomburgk, however, points out that when eucalypti trees die they begin to die from the topmost branches. The leaves fall off, and nothing but dry twigs and sticks are left until the end comes. The gum trees of all kinds are subject not only to the attacks of insects which destroy them, but to the visitation of a vegetable parasite called the mistletoe. It attaches itself to the branches and hangs down in long pendulous vitiform bunches, and is not unlike the mistletoe of the oak. When it attacks a tree the death of that tree is only a question of time.

The sandalwood tree, which grows in abundance on Yorkes Peninsula, is short, but produces solid and strong wood. When freshly cut down it has an agreeable odor, which lasts for a long time, but becoming more and more faint as the trunk dries. It is useful for many purposes. It also does duty as firewood. Those who have read in Eastern tales about chambers being scented with burning sandalwood, and imagine that a perfume of a pleasant nature must be the result, would be completely disillusioned by the combustion of our sandalwood. This wood is known even in China as a deadly foe to mosquitoes. This is not sur-

prising, for anyone who has had the good or ill fortune to camp by a sandalwood fire in the bush will give his clear testimony to the fact that the smell of the burning wood is bad. It is not too much to say that it verges on the insufferable. Some specimens of the timber have been sent to England, and some were forwarded to the Paris Exhibition in 1871, but they have not attracted attention.

After noticing the general features of the flora of South Australia the author above referred to says:

Notwithstanding the little apparent difference in the formation of its surface, soil, and climate, the flora of South Australia introduces itself to the observer in its geographical extension by special and peculiar forms of plants in regions. These are the forest land, scrub land, grass land, and the intra-tropical regions.

The region of the forest land in South Australia occupies most of the mountain districts, and extends along the base of the mountain chains. The forests have not the fullness and lofty growth of those of other countries. The underwood is of medium size, more open and less difficult to penetrate. The forests are of less extent, and are intercepted by tracts of grass land. The eucalypti are the most predominant forest trees; the stringy bark often forms whole forests in some mountain districts, but is seldom seen on the plains.

The trees of the forests do not appear crowded, and seldom do the branches of a tree reach those of a neighboring tree. The declivities of the mountain ranges are for the most part similarly timbered, the trees sometimes extending to the summits; often only one-half or two-thirds of the remaining part being grassed, with here and there copses of low shrubs, and stunted and much ramified trees. Often the whole declivities are grassed without even a shrub or tree.

Another feature of the table-land in the hill districts is the appearance of occasional hills clothed only with a covering of tussocky grasses, amongst fragments of ironstone quartz and sand, destitute of all other vegetation, except small scattered trees of the *Causarina stricta*, *C. glauca*, and the peppermint (*Eucalyptus odorata*).

The level table-land is generally covered with grass, but is deficient in shrubs. Here scattered are to be seen the most stately and majestic specimens of eucalyptus. Such table-lands have a park-like appearance, and the trees standing seemingly at measured distances, single or in small clumps, as if planted by a landscape gardener. The soil of these table-lands is, generally speaking, very rich and produces abundant crops of cereals. The underwood of the forests is most represented by the following genera: *Correa*, *Alyxia*, *Prostranthera*, *Grevillea*, *Hakea*, *Isopogon*, *Exocarpus*, *Acacia*, *Banksia*, *Cassia*, *Calythrix*, *Pomaderris*, *Leucopogon*, *Leptospermum*, *Daviesia*, *Dillwynia*, *Eutaxia*, *Platylobium*, *Puitenaea*, and shrubby eucalyptus.

"The beautiful genus *Epacris*, which is only represented in South Australia by one species (*E. impressa*), frequently covers whole mountain ridges and declivities: when in bloom the different shades of color of its flowers produce an effect not readily described.

Among the most useful of the public institutions in South Australia is the woods and forest department. It was established about fourteen years ago, and was then called the forest board. Its organization, however, was not very successful, and its functions were transferred to an officer as head of a department under ministerial control. The change has proved to be beneficial, and forest planting in South Australia has been attended with the greatest success.

For forest purposes the colony has been divided into 4 districts, the northern containing 9 forests, covering 121,979 acres, the central dis-

trict includes 8 forests, containing 21,647 acres, the western district has 10 forests, spread over 16,269 acres, and the southern district has 10 forests, with an area of 55,474 acres; altogether 215,369 acres. The total area under operations in 1892 was 10,185 acres.

Young trees raised in the plantations are freely distributed, 372,152 having been spread over the colony in this way in 1890-'91, and 322,383 in 1891-'92. At the present time there are close upon a million of young trees available for distribution. The actual expenditure of the department for the fourteen years ending in June, 1892, was £104,097, and the revenue derived from the sale of trees, posts, railway sleepers, etc., amounted to £103,340. The small excess of £799 as expenditure over revenue during a term of sixteen years does not give an indication of the value of the forests' reserves and their contents. Many thousands of posts for fencing purposes and sleepers for railway construction have been supplied from the forest reserves, and the supply of available timber now growing in the forests is equal, without further planting, to all the requirements which are likely to arise in the colony for many years to come.

Many varieties of timber trees are grown in the plantations which are suitable for purposes other than those of railway and fencing works. Trees suitable for the manufacture of furniture and cabinet work of different kinds are grown there in perfection. Among them may be mentioned the American ash (*Fraxinus Americana*), which has succeeded beyond all expectation. Some of the trees were felled at the early age of ten years, and the timber after drying, was made up into various articles, such as buggy poles, tables, chairs, Indian clubs, mallets for driving tent pegs, constables' staves, trapeze bars, wickets, buggy naves, etc. Many of the samples were used for turnery, and in every case the results were most satisfactory. The wood is reported "to be unrivaled in toughness and adaptability for turning, as it stands working to the very outside and to the smallest dimensions of any timber without exhibiting any tendency to break off."

In 1891 "a consignment of the best American-grown ash was received by Messrs. Marshall & Co., and their foreman, after comparing the Australian-grown timber with it, unhesitatingly gave it as his opinion that the Australian article was equal to the American or anything received from any part of the world of the same kind of timber, being a better color and tougher, and working up equal to satin wood, while it never deadens from being polished, and always keeps its color."

The *Pinus insignis* has also been grown with the most satisfactory results. It possesses the special merit of requiring less dressing with the plane than any other deal, as a surface can be obtained much more readily thereon. It takes a good polish, is very tough, and does not split on exposure, which is a great advantage in connection with manufacturing purposes.

Mr. Gill, the conservator of forests, regards these results "as encour-

aging in the highest degree, giving, as they do, most satisfactory proof of the progress already attained in the acclimatization of some valuable exotic timbers, and also as indicating what may be expected in later years when these timbers shall have been properly matured."

KINDS OF LUMBER USED.

The principal lumbers used are Oregon pine, which is preferred because it is most suitable in every respect for building and for its cheapness, and Jarrah and Tasmanian blue gum hard woods.

IMPORTS OF LUMBER.

The amount of lumber imported is obtained from the latest statistical returns (1892), and the names of the countries are as follows:

Kinds and whence imported.	Quantities.	Value.	Kinds and whence imported.	Quantities.	Value.
Boards:			Sleepers:		
United Kingdom, super. ft.	209,500	\$8,425	Victoria.....number..	992	\$250
Victoria.....super. ft.	183,539	6,635	Western Australia..do...	{ 89,422	79,785
New South Wales..do...	17,500	1,270		{ 90,414	80,035
Western Australia..do...	36,600	1,170	Total.....do...	170,828	160,070
New Zealand.....do...	178,500	4,050	Shingles:		
Tasmania.....do...	89,500	1,445	Tasmania.....do...	16,600	100
India.....do...	800	25	Spars and quartering:		
Canada.....do...	151,800	4,870	United Kingdom..loads..	125	1,760
Russia.....do...	362,400	13,000	Victoria.....do...	217	3,225
Norway and Sweden..do...	4,704,200	138,370	New South Wales..do...	34	830
Germany.....do...	100,000	4,000	Western Australia..do...	4,554	75,175
United States.....do...	3,785	35,825	New Zealand.....do...	111	1,225
Total.....do...	6,028,124	219,085	Tasmania.....do...	5,213	51,135
Deals and battens:			India.....do...	9	125
United Kingdom..loads*.	254	5,640	Singapore.....do...	34	590
Victoria.....do...	71	1,100	Canada.....do...	443	2,505
New South Wales..do...	2	30	Norway and Sweden..do...	9	135
Western Australia..do...	1	15	United States.....do...	6,337	92,130
Queensland.....do...	15	525	Total.....do...	17,086	228,835
Tasmania.....do...	1,046	8,420	Spokes, in the rough:		
New Zealand.....do...	1,124	16,500	Victoria.....number..	50	5
India.....do...	31	460	New South Wales..do...	48,193	2,380
Singapore.....do...	25	250	Tasmania.....do...	1,300	30
Canada.....do...	8,062	81,690	Total.....do...	49,543	2,415
Russia.....do...	990	16,500	Staves, in the rough:†		
Norway and Sweden..do...	10,822	155,935	United Kingdom.....do...	4,818	3,520
Germany.....do...	8	115	Victoria.....do...	21,228	550
United States.....do...	3,785	46,660	New South Wales..do...	3,000	90
Total.....do...	26,236	333,840	Tasmania.....do...	89,388	1,970
Laths:			Germany.....do...	21,161	580
New South Wales, number.	2,000	15	United States.....do...	40,806	6,175
Tasmania.....number..	152,400	375	Total.....do...	180,401	12,885
Canada.....do...	408,000	645	All other lumber:		
United States.....do...	222,750	675	United Kingdom..loads..		10
Total.....do...	785,150	1,710	Victoria.....do...	333	6,215
Palings:			New South Wales..do...	838	21,420
Victoria.....number..	25,200	760	Western Australia..do...	3,345	59,870
Western Australia..do...	102,800	2,830	Queensland.....do...	377	9,395
Tasmania.....do...	659,140	17,850	New Zealand.....do...	1,015	14,685
Canada.....do...	56,400	685	Tasmania.....do...	1,475	21,870
United States.....do...	30,300	410	Singapore.....do...	4	40
Total.....do...	873,840	22,535	Canada.....do...	3,542	21,235
			Germany.....do...	1	40
			United States.....do...	30,429	458,830
			Total.....do...	41,359	613,410

*The load equals 50 cubic feet of square timber; 40 cubic feet of unhewn timber; and 600 superficial feet of 1-inch planks.

†No qualification of quantities given.

Imports of lumber—Continued.

Kinds and whence imported.	Quantities.	Value.	Kinds and whence imported.	Quantities.	Value.
Woodenware:			Woodenware—Continued.		
United Kingdom		\$9,260	Hongkong		\$35
Victoria		10,190	Norway and Sweden		15
New South Wales		2,810	Belgium		130
Western Australia		995	France		145
Queensland		151	Germany		1,295
New Zealand		1,301	United States		45,300
Tasmania		40			
India		45	Total		71,717
Ceylon		5	Grand total		1,666,602

DUTY AND PRICES.

The duty on lumber entering South Australia, following the order in the foregoing import table, is as follows: Boards, 36 cents per 100 superficial feet; deals and battens, 60 cents per load; laths, 24 cents per 1,000; palings, 12 cents per 100; sleepers, free; shingles, 12 cents per 1,000; spars and quarterings, 60 cents per load; spokes, in the rough, free; staves, in the rough, free; all other, free; wooden ware, 25 per cent.

The wholesale prices of lumber at Fort Adelaide are as follows:

Shelving	per 100 superficial feet..	\$6.36
Oregon pine	per cubic foot..	.24
Jarrah	per 100 superficial feet..	3.65
Stringybark	do...	2.43
Cedar logs	do...	4.86
Huon pine logs	do...	4.86
Kauri pine	do...	6.36
Red pine	do...	6.36
Flooring boards:		
1½ inch	do...	2.19
¾ inch	do...	1.70
¾ inch	do...	1.58
¾ inch	do...	1.21
Deals, 9" by 3"	per foot..	.17

CLIMATE.

The climate of South Australia, although occasionally somewhat trying in the summer months, is unquestionably one of the most agreeable and healthful in the world. It has been compared with that of the south of Spain. Its skies have been justly described as surpassing those of Italy. The purity and dryness of its atmosphere are quite equal to similar climatic characteristics which prevail in the best portions of Algeria. In fertility of soil it is not inferior to that of the most favored districts in those sunny lands. The enormous territory which is embraced within the limits of South Australia proper, having an area of about 380,070 square miles, or 243,244,800 acres, naturally includes considerable climatic differences. The climate on the hills and on the highlands is temperate and genial, and not marked by an excess of cold during the winter months. On the plains the summer weather is

most felt, for, as the winter and spring rains cease, they become dry and hot and unfavorable to the growth of many plants which belong to cooler countries. On the hills almost all the fruits and vegetables which grow in Europe and in the more temperate regions of Asia, as well as many that are indigenous to Africa and America, thrive splendidly. The productiveness of the colony depends to a very great extent upon the rainfall, and that varies remarkably, not only in different localities but in different seasons. Thus the rainfall at Mount Lofty, 8 miles south from Adelaide, in 1889, amounted to 67.010 inches; in 1859 it was 32 inches. At Parallana, in the far north, in 1888, it was 1.710 inches, and in 1885 it had been 20.405. In some parts of the north, such as Lake Frome, only 5 inches were recorded. The average rainfall in the whole of the agricultural districts of south Australia, from Melrose to Cape Northumberland, in 1890 was 26.646 inches, the mean from previous years being 21.476. The highest total was in 1889, when 30.874 inches were recorded at the Adelaide observatory; and the lowest in 1876, when no more than 13.434 inches were noted at the same place. It is somewhat strange that the heaviest rainfall known in the colony should not have been followed by something approaching to a corresponding increase in the harvest; yet, in 1863, with a rainfall in Adelaide of less than 24 inches, the yield was nearly double that which was secured in 1889, when the rainfall was nearly 31 inches. This noticeable discrepancy, however, may be ascribed to causes not altogether dependent on the actual quantity of rain that descends. The time of the year at which the rains set in, their duration, the temperature which immediately follows upon the rains when they continue late and come down upon the verge of summer, and the early visitation of north winds, which in the summer are hot, have their share in influencing the quantity of the yield. Other circumstances, not meteorological, have also their effect on the harvest.

The observations of the rainfall which occurs in the various parts of the colony are recorded at 368 stations. At several of these the daily range of the barometer and thermometer are noted, with all the particulars, which accurately describe the meteorological conditions of the place. These are forwarded to the central station, where, under the direction of C. Todd, esq., postmaster-general and government astronomer, they are collated, tabulated, and prepared for publication. By means of the telegraph, which extends from Adelaide to the Indian Ocean on the north, to Melbourne and Sydney on the east, almost to the extreme north of Queensland on the northeast, and from Adelaide to Northwest Cape in western Australia, the Government astronomer is able to publish weather forecasts, which being generally reliable are alike interesting and useful to the public, and are eagerly looked for in the columns of the daily journals.

From this it will be seen that this colony (as well as the other colonies whose meteorological records are collected and made up on the

same system) is in a position to furnish daily accounts of meteorological phenomena which occur over most of the continent that can be regarded as authentic. The record of the rainfall dates back as far as 1839, when it was commenced by the late Sir George Kingston, formerly speaker of the house of assembly, and who kept it up till within a very short period of his death, in 1880. The record at the observatory was commenced in 1856, since when its operations have been gradually extended all over the province, so that its meteorological arrangements are as complete as it has been possible to make them.

The postmaster-general and astronomer to the colony published in 1876 a paper which gave interesting particulars of the climatic peculiarities of south Australia, as well as a detailed account of the observatory and its appliances. Since the publication of that memoir the climate of the colony has not sensibly changed. There have been irregularities in the seasons, or rather irregularities in the special phenomena of those seasons, especially of late years, which should, if duly weighed by those who are interested in the culture of the land, whether as fruit-growers, vignerons, market gardeners, or producers of grain, largely influence the horticulture and agriculture of the future.

In the memoir on the climate which has been referred to Mr. Todd says:

The observations at the observatory satisfactorily represent the climate of the plains for some distance north and south of Adelaide, but in the Mount Lofty ranges, close by, the citizens can in an hour or two find a much lower temperature, and twenty minutes by, railway will carry them to the invigorating breezes of the gulf; and, except when kept back by strong easterly and northerly winds, the sea breeze sets in soon after 10 a. m. and sweeps across the plains, tempering the heat during what would otherwise be the hottest hours of the day.

The hottest months in the year are December, January, and February, when the temperature on the plains frequently exceeds 100 in the shade. November and March are also hot; but the nights, especially in the former month, are cooler, and the heat is seldom of long duration, rarely reaching 100 in the shade, and, coming in suddenly with a strong hot wind, is followed quickly by a change to cool, or even cold, weather. A few hot days occasionally occur in October; but, even in the hottest months, especially in December, the weather is often broken by cloudy cold intervals, with strong southwest winds, veering gradually to south and southeast. This state of things will continue for several days, during which the wind from the southeast will usually freshen towards sunset, a bank of cloud forming over the Mount Lofty ranges, with cold nights, the temperature falling rapidly after sunset. The duration of these southeastern winds appears to depend upon the weather on the eastern coast, and the presence of the bank of cloud on the ranges, and the persistence and force of the wind, often indicate gales and rain on the coasts of New South Wales and Queensland, although the weather here may be fine and clear overhead. As the easterly wind moderates it gradually hauls to the north, and alternate land (easterly) and sea (southwesterly) breezes set in with fine weather, getting warmer and warmer, till another spell of extreme heat is experienced. The heat is sometimes followed by rain, especially in the earlier part of the season, setting in with the surface and light wind at northeast, but the upper current northwest. This is usually presaged by aggregations of cirro-cumuli, which close up and form a bank

with a hard sharply-defined outline, gradually spreading over the sky, the clouds at the same time increasing in density as they change their character, with scud forming beneath. The rain increases as the wind veers to the northwest, and often extends over a large area to the north and is sometimes accompanied with heavy thunder and lightning, usually terminating with a gale from the southwest. The same thing occurs in the winter; but the wind at that season hangs longer about the west, often backing to the northwest, with heavy rain and wind. These are usually our heaviest and most widely diffused falls, the rains from the southwest seldom extending far inland.

The summer may be regarded as extending from October to March. After that month the temperature falls rapidly, very rarely reaching 90 in the shade. * * * The weather during April and a great part of May is simply perfection, and the same applies to most of the winter and till the end of October. Although corresponding to the autumn or early winter of Europe it is virtually spring, when vegetation, refreshed by the first rains after the drought of summer, bursts into fresh life, and the whole surface of the land is clad with verdure. Heavy rains frequently fall in May, and the greatest downfalls usually occur in that month. The coldest months are June, July, and August, but the mean temperature is not very low. The cold is sometimes much felt in the winter months, because of the contrast it emphasizes between the summer weather and the genial temperature which prevails in other portions of the year. Frosts occasionally occur on the plains, and frequently on the hills. Ice, perhaps a quarter of an inch thick, is occasionally noticeable in shallow surface pools, but this rarely if ever survives an hour's sunshine. Snow has sometimes fallen at Mount Lofty and on other high summits in the ranges, and at other times a few miles north of Koorunga, which is 1,560 feet above the level of the sea. Snow is, however, quite phenomenal in south Australia, and the drift does not remain on the ground for more than an hour or two, whenever it does occur.

In writing on the subject of the course of the seasons and weather forecasts, late Sir George Kingston gave the following as the results of his observations extending over forty years:

The heaviest rain throughout the year may be expected with a wind at about northeast, the rain commencing to fall gently and the wind light, both gradually increasing as the latter veers around to the north, and thence to the northwest, when the violence of both wind and rain has much increased. After this the wind may be expected to draw around to the west, when the rain generally ceases, or at least rarely falls except in heavy squalls and showers, and the weather clears up. The time occupied by a continuous fall of rain, as thus described, rarely amounts to twelve hours. The wind will, however, frequently hang at about west, with a few points of variation to the south and north for some days, during which period rain occurs in showers if to the south, and more steadily in proportion to the northing of the wind. The heaviest rains, assuming a tropical character, may be expected after a hot northeast wind drawing round to the northwest, at which point an inch of rain and upwards has often fallen within the hour, accompanied with heavy thunder and lightning; or, as in October, 1854, the rain is represented by tremendous hail-storms, the hail assuming the form of flat pieces of ice.

As regards the use of the barometer in forming a judgment on the weather to be expected, I have to observe that the barometer invariably begins to fall with a northeast wind, continuing to fall as the wind increases in violence and draws round by the north, northwest, and westerly, at or about which point it reaches its lowest figure. The barometer generally begins to rise with the least southing in the wind. Now, although a low barometer thus agrees with the heaviest fall of rain, it is impossible to draw certain conclusions from it as to probability of rain or otherwise unless, indeed, when the wind is violent, as then, even with every appearance of heavy cloudy weather, rain rarely occurs. Calm, murky weather, accompanied by

a low state of the barometer, is the most favorable indication of rain. I have frequently seen the barometer at its lowest point (as observed by me), 29.3, blowing hard, and accompanied by cloudy weather, when no rain has fallen; on the other hand, I have known some of the steadiest and most copious rains to occur with the barometer at 30.2 and falling, the wind light or nearly calm.

I may add that generally during fine weather a land and sea-breeze alternates during the twenty-four hours. After sunset the wind generally blows from about southeast to east, dying away about daylight, and a light southwest wind springs up about 9 a. m., but, failing to do so, the land wind towards morning draws round from east to northeast by north to northwest, and west towards the afternoon; and should it hang to the north of east, with a falling barometer, it is a certain precursor of a hot wind.

It may not be uninteresting to add here that, when Sydney was visited by tremendous storms and floods from the 19th to the end of July, 1860, the weather here was then usually fine for the time of the year; the barometer was, during all that time, above 30 inches and very steady, oscillating slightly each day, its whole range not exceeding 0.2; the wind was very light, from southeast to northeast and northwest. I did not record a drop of rain all that time, an unprecedented event at that period of the year.

The winds, according to Mr. Todd, during the summer tend generally on all sides to the heated interior, which may be roughly described as a vast plain broken by a few ranges, none of which are of any great size or magnitude; on the south coast, the wind being southeast and south varied by occasional southwest gales following a hot wind from the northeast and north, whilst further north and round the north coast, the northwest monsoon for some months before and after the summer solstice presses down south with varying force, often making itself felt as far south as the Macdonnell ranges on the southern edge of the tropics in the center of the continent. North of the Macdonnell ranges the winds during the summer season are variable, southeast and northwest winds alternating with calms, and heavy electrical storms with rain prevail with increasing intensity northwards to the coast. South of the Macdonnell ranges southeast winds prevail during the greater part of the year, but in the summer they are often influenced by the northwest tropical current, and then veering to the northeast and north will sweep over south Australia as a hot wind, the birthplace of which seems to be, speaking approximately, somewhere about latitude 26. Our experience of the climate of the interior of Australia is as yet but limited, but the stations on the great overland telegraph now furnish accurate daily reports of the weather, direction of upper currents, and rainfall. These reports show that the prevailing wind, except during the middle of summer, is southeast.

In connection with Sir George Kingston's "weather forecasts," the following observations from Mr. Todd may be read with interest:

I have long been of opinion that the southerly dip of the monsoon largely influences the climate of South Australia proper, as well as that of Victoria. In seasons of drought, or when the summer in the interior is dry, the northwest monsoon rains thin off and rarely reach the center in occasional storms. But when the monsoon is strong and blows well home, the tropical rains and thunder will stretch right across the continent well into the northern country of South Australia to within about 200 or 300 miles of Adelaide, and occasionally these tropical rains will reach the south coast. A wet season in the interior will probably coincide with a hot summer in South Australia and Victoria, whilst a cool summer in the latter, where strong polar currents keep the temperature down and the southeast winds are powerful, will denote or coincide with a dry summer in the interior and a weak northwest monsoon. The winter rains of the south, it may be remarked, thin off at about 3° or 4° north of Adelaide, rarely penetrating to latitude 28, and summer rains are

not to be depended upon far south of the tropics. Between those parallels is a wide belt of 5° or 6° having an uncertain rainfall, subject to droughts, very seldom getting rain during the winter, but mostly depending on summer thunderstorms, the frequency and intensity of which, it is not improbable, may be found closely to coincide with the magnetic cycle of eleven and a quarter years, which is believed to determine the frequency of auroræ magnetic storms and solar spots. This, of course, is conjectural, and is not to be accepted till proved by increased experience.

From the foregoing a tolerably accurate conception of the South Australian climate may be formed. There is one thing, however, which deserves some notice here. In many published articles in newspapers and magazines the hot winds of Australia, and especially of South Australia, have been mentioned in highly colored terms. They have been described as terrific, and have been dwelt upon as though the climate of this province was somewhat worse than tropical. It is quite true that hot winds are not pleasant; in fact, they are enervating, and whilst they last are exceedingly exhausting to persons who are in a feeble state of body; but they seldom last for more than a few days, and when the westerly breezes which succeed them set in, sometimes suddenly, all the bodily *malaise* which they may have caused quickly disappears. They have, however, a most beneficial effect in purifying the atmosphere. They destroy noxious germs which may float about in the air, and otherwise do an immense amount of good. At the same time their effect upon tender plants is severe, and all kinds of flowers and shrubs which are not hardy or tolerably well protected from them droop and shrink, and are slow to recover their strength until a much cooler temperature prevails.

Even with the drawback of occasional hot winds, there is seldom such severe heat in the summer as to prevent persons from following their ordinary occupations out of doors. There are only forty-five days in the year, taking the average of thirty-four years, 1857 to 1890, on which the temperature rises above 90° . The Government astronomer has noted this fact, and states that this climate, "beautiful as it really is, affording as it does the great number of pleasant days on which outdoor pursuits can be carried on with buoyancy of spirits is a wee bit dry, a fact which vegetation on the plains in our summer season sufficiently attests. The clearness or transparency of the atmosphere is something wonderful and owing to its dryness, except on hot-wind days, it is seldom oppressive unless one is lazy. Cricket matches are played with the usual enthusiasm before crowds of spectators with the thermometer ranging between 90° and 100° in the shade, and the writer has ridden 50 miles in a day with the thermometer as high as 110° without much inconvenience or distress; the secret of which is that these high temperatures are always accompanied by such an extreme dryness of the air that perspiration affords instantaneous relief. When a fierce hot wind is blowing and the thermometer stands at perhaps something over 100° , the wet bulb thermometer stands at 65° , and it is this which

enables persons to bear the heat of summer and carry on their usual pursuits with less inconvenience and discomfort than is felt in damp climates, where the temperature may be 15° or 20° lower but nearly saturated with aqueous vapors, as at Port Darwin, where during the rainy season of the northwest monsoon the thermometer may stand at only 88, whilst the wet bulb indicates 86. Such an atmosphere, we need hardly say, is far more enervating than the hot and dry air of the Adelaide plains."

One peculiarity of the Australian climate is the occurrence of drought. Droughts are either general, that is to say, they affect the whole of the Australian continent in a greater or less degree, or they are partial, that is confined within limited areas. South Australia is probably more subject to visitations of this kind than other portions of Australia, owing, to some extent, to the absence of high mountain ranges in the interior. The causes of these droughts have been very carefully investigated by the official heads of the meteorological departments in the principal colonies, and as far as their observations have been extended they are generally in accord upon the subject.

GENERAL BUILDING.

General building is at a standstill at present. Those houses now being erected consist of a small class of residences of about four rooms, built of stone, of which the majority of buildings are constructed.

The timber used in railroad building is grown locally, and is obtained from South Australian Government forests, and consists chiefly of the eucalyptus class.

EXTENSIONS OF LUMBER TRADE.

I can not offer any suggestion concerning the methods to increase the lumber trade with this province, now already considerable.

CHAS. A. MURPHY,
Consular Agent.

ADELAIDE, March 8, 1894.

TASMANIA.

NATIVE WOODS.

The principal native woods of Tasmania are the various species of gum (*Eucalypti*), the myrtle (*Fagus cunninghami*), the Huon or Macquarie Harbor pine (*Bacrydium franklinii*), and the blackwood or lightwood (*Acacia melanoxylon*).

The gum timber is all hard and dense. As a rule it shrinks considerably, and warps and twists, and for interior work is used for floors

alone. For this purpose it is exceedingly durable. It is used universally for frame houses, joists and beams, piles, and decking for bridges, wharfs, etc. The Huon pine is a very valuable and durable wood, but it is comparatively scarce and dear; for this cause it does not supplant the imported timber. The lightwood is used mainly for furniture and interior fittings.

KINDS OF LUMBER USED.

The lumber used, and which is preferred, is principally Swedish, imported in the form of "deals," and tongued and grooved linings. American redwood and shelving and Oregon pine are used to a limited extent, and the Kauri pine of New Zealand more largely.

IMPORTS OF LUMBER.

In 1891 the total imports of timber were 5,335,000 superficial feet, but with the prevailing depression and consequent suspension of building, it is expected that the quantity will be materially diminished this year.

As much of the timber comes through the colonies of Victoria and New South Wales, the original source of supply can not be given with accuracy. Probably about 850,000 superficial feet came from the United States, 3,235,000 superficial feet from Sweden, and 1,250,000 superficial feet from New Zealand, in 1891.

DUTY AND PRICES.

There is no duty on timber 3 inches thick or over; under that pays 60 cents and \$1.21 per 100 superficial feet.

At the present time the values of all kinds of timber are abnormally low: American red wood, \$4.01; Oregon, \$2.67, duty paid (60 cents) in both cases; American shelving, \$6.08 duty paid (\$1.21); all per 100 superficial feet. The native gum flooring boards, tongued and grooved, are sold at \$3.04 per 100 superficial feet.

CLIMATE.

The climate of the island varies, owing to its mountainous character, but it is temperate and equable throughout, the mean yearly average range probably not exceeding 68° F.

GENERAL BUILDING.

General building has been fairly active until now. It does not seem probable that much recovery will take place for some time.

Railroad building is also suspended and is not likely to be resumed, except in a small way; in any case, very limited quantities of imported timber would be used in construction.

EXTENSION OF LUMBER TRADE.

With a population of only about 150,000, the trade in American timber is not capable of much extension, but the expected development of the mineral deposits may, before long, lead to expansion.

A. G. WEBSTER,

Consul.

HOBART, *February 20, 1894.*

VICTORIA.

BUSINESS DEPRESSION.

In the closing months of the year 1889 what is known as the "land boom," which for the preceding three or four years had caused a large increase in the consumption of building materials, collapsed, and as importations of lumber, based on the same rate of consumption being kept up, continued to come in for a long time, the market for timber has been suffering ever since from the accumulation so caused and the absence of any revival in the trade to clear it off.

Carpenters or timber workers are in a very unhappy condition at the present time. The managing partner of one of the largest timber houses here says that not more than one-third of the business done in their trade two years ago is being done now. In one large establishment which gave work to 150 men in 1892 only 48 hands are now employed, and these only at half time. To put it in another way, two years ago the firm was paying £500 (\$2,430) a week in wages, now they are paying under £100 (\$486). The figures are representative of the condition of the trade generally. Moreover, in the boom time a crowd of firms came into existence which are no longer in evidence—firms begotten of prosperity which adversity as readily suppressed. It is calculated that at least 30 shops of that character have been closed in the city.

Literally nothing is required in the trade in Melbourne, which embraces half the population of the colony, but there is a small demand for prepared timber from the country which keeps city mills slightly employed. But for the country business and the butter trade, which utilizes for boxes about 2,000,000 super feet of silver pine annually, the timber industry would be at a complete standstill.

The timber required for the butter trade has to be imported from New Zealand, there being, it is said, no sufficiently odorless wood in this colony.

NATIVE WOODS.

The native woods of the colony are all very hard and not well adapted for building, though admirable for other purposes.

The following trees of the *Eucalyptus* tribe are the most important:

The red gum tree (*Eucalyptus rostrata*), the timber of which is one of the most highly esteemed among the *Eucalypti* in all Australia, being heavy, hard, strong, and extremely durable, either above or under ground, or in water. For these reasons it is very much prized for fence posts, piles, and railway sleepers. For the latter purpose it will last at least a dozen years, and, if well selected, much longer. The late commissioner of railways reported that sleepers were found quite sound after being twenty-four years in use. It is not to be surpassed in endurance for wood bricks in street paving and for tramways.

The blue gum tree (*Eucalyptus globulus*) furnishes a first-class wood. Shipbuilders can get keels of the timber 120 feet long; besides this, it is used for planking and many other parts of the ship. Experiments on the strength of various woods, instituted by the Government botanist, proved the wood of the blue gum tree, in an average of eleven tests, to be about equal to the best English oak, American white oak, and American ash. Blue gum wood is very extensively used by carpenters for all kinds of outdoor work, joists and studs for wooden houses; also for fence rails, telegraph poles, railway sleepers (lasting nine years or more), for shafts and spokes of drays and a variety of other purposes.

The iron bark tree (*Eucalyptus lenoxylon*) furnishes a most valuable timber, showing great strength and hardness, and much prized for its durability. It is largely employed by wagon builders for wheels and poles, and is also used by turners for rough work. It proved to be the strongest of all the woods hitherto subjected to test by the Government botanist, bearing nearly twice the strain of American oak and ash, and excelling hickory by about 18 per cent. It is much recommended for railway sleepers and extensively used in underground mining work. It is likewise very extensively employed for the handles of axes and other implements by Victorian manufacturers.

Besides the *Eucalypti*, the evergreen beech (*fagus Cunninghami*) and blackwood (*acacia melanoxylon*) are the most important timber trees, the latter especially being found admirably adapted for the manufacture of railway carriages; also for furniture, which is almost indistinguishable from that made of the best walnut.

IMPORTS OF LUMBER.

In consequence of the native woods being hard, and therefore not easily worked, it is necessary to import almost all the timber required for building purposes.

The following table gives the importations of lumber for the past eight years, and whence imported:

Year.	Baltic, United Kingdom, and Canada.			Colonial.		
	Flooring, lining, and weather-boards.	Red deals.	Spruce and Baltic white deals.	Kauri pine.	Red and white pine.	Cedar.
	<i>Super. feet.</i>	<i>Super. feet.</i>	<i>Super. feet.</i>	<i>Super. feet.</i>	<i>Super. feet.</i>	<i>Super. feet.</i>
1886.....	54, 135, 023	24, 026, 436	3, 755, 499	8, 951, 118	90, 000	3, 849, 577
1887.....	26, 405, 838	17, 259, 012	762, 795	7, 888, 104	531, 300	2, 921, 141
1888.....	51, 052, 077	22, 063, 392	2, 589, 675	14, 493, 927	2, 866, 581	2, 159, 183
1889.....	49, 960, 908	25, 118, 280	3, 006, 263	15, 551, 906	529, 900	1, 401, 232
1890.....	56, 743, 271	28, 072, 319	2, 354, 118	12, 914, 750	715, 727	1, 255, 753
1891.....	36, 367, 258	10, 039, 821	3, 268, 213	13, 845, 346	1, 723, 684	989, 936
1892.....	23, 477, 951	1, 19, 471	2, 289, 093	5, 531, 846	1, 707, 891	868, 681
1893.....	13, 368, 894	746, 914	1, 482, 008	3, 838, 585	2, 523, 199	47, 620

Year.	United States and Canada (west coast).					
	Flooring, lining, and weather-boards.	Red deals.	Spruce and white deals.	Kauri pine.*	Red and white pine.	Cedar.
	<i>Super. feet.</i>	<i>Super. feet.</i>	<i>Super. feet.</i>	<i>Super. feet.</i>	<i>Super. feet.</i>	<i>Super. feet.</i>
1886.....	31, 341, 179	955, 779	(†)	2, 481, 066	4, 068, 327	401, 150
1887.....	24, 515, 087	1, 273, 590	(†)	2, 098, 444	2, 841, 650	450, 030
1888.....	55, 487, 694	1, 431, 957	(†)	3, 973, 558	4, 861, 419	468, 450
1889.....	35, 220, 629	1, 376, 109	(†)	4, 939, 101	5, 332, 382	380, 814
1890.....	35, 426, 131	1, 767, 797	2, 508, 933	1, 173, 208	3, 337, 429	189, 933
1891.....	20, 337, 733	816, 857	2, 979, 910	1, 478, 266	3, 726, 476	244, 894
1892.....	13, 603, 638	1, 286, 356	1, 680, 570	813, 162	2, 119, 738	134, 064
1893.....	1, 170, 760	270, 948	238, 057	.....	42, 370	17, 245

* As in the original.

† Included in clear pine.

Laths, pickets, and doors from the United States, Canada, and the Baltic.

Year.	Laths.		Pickets.	Doors.
	<i>Bundles.</i>	<i>Bundles.</i>	<i>Number.</i>	
1886.....	167, 342	158, 397	16, 457	
1887.....	122, 202	116, 255	6, 627	
1888.....	132, 175	202, 400	9, 774	
1889.....	97, 622	194, 832	1, 563	
1890.....	86, 503	156, 325	1, 182	
1891.....	51, 721	53, 800	803	
1892.....	17, 344	51, 432	1, 760	
1893.....	1, 740	3, 000	501	

DUTY.

The duties on timber in this colony may be summarized as follows:

Oregon (Puget Sound) fir:

12 by 6 or equivalent.....per 100 superficial feet.. \$0.36
 7 by 2½ or equivalent up to 12 by 6.....do..... .60

Shelving and tongue-and-groove sheathing (American), flooring, lining, and weatherboards (Baltic).....per 100 superficial feet.. .36

Timber cut into shapes for making boxes.....per cubic foot.. .12

Timber not otherwise enumerated, of sizes under 7 by 2½.....per 100 superficial feet.. .97

Laths.....per M.. 1.21

Pickets:

Undressed.....do..... .12

Dressed.....per 100.. .12

Shingles.....per M.. .18

Doors, skirtings, and moldings are charged heavy duties, intended to be prohibitory.

The following descriptions are free of duty: Clear pine, sugar pine, California redwood, undressed, 1 inch thick and over; ash, oak, hickory, walnut, whitewood, and sycamore, undressed; Baltic red and white deals, 7 by 2½ and upwards; Australian and New Zealand pines of all sizes, undressed.

The duty on Oregon fir, 7 by 2½ and over, was first imposed on July 29, 1892, and at the same time the duty already existing on sizes under 7 by 2½ was doubled, both at the instance of the local hard-wood dealers, who contended that Oregon unduly interfered with their product.

PRICES.

The market price of American timber is slightly better at present than during the past two years, and is as follows: Oregon, new stock, \$25.54 to \$26.76; old stock, \$21.89 to \$23.11; redwood, \$35.37 to \$36.49; sugar pine, \$53.53 to \$58.39.

I am informed that the stock of Oregon held by trade hands is very large, and owing to the small demand for timber of all descriptions the reducing process proceeds very slowly.

PUBLIC BUILDING.

Railroad building is practically at a standstill for want of available funds, and, except in station buildings, no imported timber is used in railway construction.

Shipbuilding is not an industry in this colony; a few vessels have been built of iron, and barges, etc., for the harbor trust, but exclusively of local woods.

EXTENSION OF LUMBER TRADE.

The merits of Oregon timber, for which a decided preference is shown, are fully recognized by the people here, and the demand for it is commensurate with the building being carried on.

The result of my interviews with the timber merchants of this city, as to what manner the lumber exports from the United States to this colony may be increased, is, therefore, that the return of brighter times, which is confidently expected in the near future, must be awaited before the demand for American lumber can be increased.

DANIEL W. MARATTA,
Consul-General.

MELBOURNE, *March 1, 1894.*

EUROPE

AUSTRIA-HUNGARY.

NATIVE VS. AMERICAN WOODS.

From the very best information I can gather, this country is not quite yet ready to use American lumber to any great extent. The American lumber exporters should realize that here in Europe their only competitors, especially for German, French, and Italian consumption, are the Austro-Hungarian lumber dealers.

Up to the present time, nearly all of the staves used for wine in France and Italy, passed through the hands of the Austrian merchants, and the same can be said of those used in the breweries of Germany. The forests remaining in Austria proper, are nearly all used up, and it is from the Hungarian portion of this empire that most of the lumber is exported. The Hungarian forests are mainly owned by the Government, and city and village communes.

About three years ago, the Government, which controls the cutting of forests in Hungary, curtailed the number of trees to be felled, so that at their annual sales less lumber was offered than was required for home and export wants. Some well informed parties maintain that this was a ruinous policy to pursue, as it not only fictitiously advanced the value of lumber in Austria, but it compelled lumber dealers to look elsewhere for a good portion of their wants, thus hastening the introduction of foreign lumber, which might have been delayed some ten or twenty years.

At the same time when this happened, many breweries were being started in Germany and the demand for staves in Italy and France was unusually great. Since then the prices of lumber have fallen. This is undoubtedly due to a lesser demand, and to the introduction of American lumber.

"To sum up the matter," as a very well informed lumber dealer explained: "We do not fear the United States for consumption for the next thirty or forty years; we have also enough oak in this empire to carry on a large export trade for ten years to come. At the end of this time our supply will be so reduced that it will be impossible for us to compete with the United States in foreign markets. The only way

that the Austrian lumber dealers can maintain their foreign business, will be to acquire forests in the United States."

That there is much truth in the above statement is plainly to be seen, inasmuch as from my personal knowledge I know of three different firms who have sent their representatives to the United States to acquaint themselves with the condition of the lumber trade and to buy up forests. Although not yet exporting much therefrom, they are preparing to do so in the future. The only kinds of wood, that Americans could sell in this empire, are lumber for shipbuilding purposes in the seaport towns of Trieste, Pola, and Fiume, and certain kinds which could be used for veneering purposes, such as very fine grades of oak, walnut, etc. It must be borne in mind that fine furniture manufactured here, is not made of solid oak, or other hard wood as in the United States, but mostly of soft wood veneered. Pine thoroughly seasoned and then veneered is used even for the best furniture.

The time is very near when the entire European market will be compelled to look to the United States for most of its lumber. Let us in the meanwhile husband our resources; let the destructive extravagance in the extinction and waste of our forests, cease; our wealth herein is enormous, but we have so much that we do not know how to value it.

Staves for the wine merchant must be split; the sides must not, while the tops can be cut. Again, for beer purposes, both sides and tops must be split, it being claimed that staves cut and not split make leaky barrels. As wine barrels are usually laid on their sides, the pressure on their tops is not apt to be great, and for this reason wine barrel tops can be cut instead of split.

It is most important that American manufacturers should realize the necessity of sending properly made goods to foreign markets. Some years back the first shipment of staves into Switzerland made leaky barrels, and to-day Swiss business men are afraid to purchase American staves, unless accompanied with a guarantee. And this additional very important fact must be kept in view, that this trade, which is bound to come, should be held by American merchants, and not permitted to pass into the control of foreign corporations.

PRICES.

Great quantities of oak railroad ties are made here, the shapes mostly furnished are 2.50 meters long, the top 15 to 17 centimeters, (meter = 39.37 inches; centimeter $\frac{1}{100}$ of a meter), the bottom 24 to 25 centimeters in width, and 15 centimeters high.

Prices vary according to locality; the Hungarian Staatsbahn paid for the last 30,000, recently ordered, 56 cents each, and for some smaller ones, 2.20 meters long, 36 cents. Soft lumber ties are about 30 per cent cheaper.

The prices of the lumber here in the Vienna market range about as follows:

Pine timbers for roof, 10 by 13 to 16 by 18 centimeters broad, and 10 meters long, 13 to 14 florins* per cubic meter; 18 by 20 to 21 by 24 centimeters broad, and 10 meters long, 14 to 16 florins per cubic meter; 18 by 24 centimeters broad, and 6 to 8 meters long, 13 to 15 florins per cubic meter. Pine boards, according to quality, 15 to 22 florins; oak boards not assorted, 38 to 45 florins.

Staves for hectoliter (barrels which hold 100 liters), one-fourth hectoliter, 1 to 1.60 florins; one-half hectoliter, 1.50 to 2.30 florins; 1 hectoliter, 2.40 to 3.30 florins.

Staves for transportation: Barrels containing from 3 to 13 hectoliters, 2 to 2.10 florins per hectoliter. Staves for storage: Barrels containing from 20 to 80 hectoliters, 2.20 to 3.40 florins.

EXPORTS OF LUMBER.

The following table shows the export of lumber from Austria-Hungary for the first eleven months of 1893:

Timber:	Metric centners.†
Raw, hard	595,622
Raw, soft	8,059,049
Hewn, hard	322,709
Hewn, soft	788,737
Staves	1,401,299
Railroad ties	481,690
Sawn wood, hard	810,930
Sawn wood, soft	5,780,531
Timber, not European	105
Total	18,240,672

Most of the above went to France, Germany, Spain, Italy, Switzerland, Greece, Egypt, Holland, Belgium, Bulgaria, and the British Dominions on the Mediterranean Sea.

IMPORTS OF LUMBER.

The following table shows the imports of lumber into Austria-Hungary for the first eleven months of 1893:

Timber:	Metric centners.
Raw, hard	92,559
Raw, soft	151,714
Hewn, hard	27,330
Hewn, soft	35,029
Staves (from the United States direct)	39,727
Railroad ties (nearly all from Russia)	142,640
Sawn wood, hard (from the United States direct)	49,635
Sawn wood, soft (from the United States direct)	135,298
Timber (from the United States direct)	61,358
All other	33,470
Total imports	769,160

* The consul-general estimates the florin at 39 to 40 cents.

† Metric centner = 220.46 pounds.

The lumber described "all other" was nearly all transshipments from German ports, but it should be noted that the timber was not grown in Europe.

MAX JUDD,
Consul-General.

VIENNA, February 21, 1894.

BOHEMIA.

NATIVE WOODS.

Bohemia is well supplied with forests of heavy trees, the Boehmerwald region being specially noted for same. The woods in Bohemia can be divided into three classes: (1) Pine forests; (2) leaved, or hard forests; (3) mixed forests. The prevailing species of the coniferous trees are the spruce, fir, the pine, and the larch. Among these the spruce predominates.

Of the deciduous trees the prevailing species are beech, oak, and birch, the beech predominating. Among the mixed species are found poplar, alder, elm, basswood, chestnut, aspen, and maple.

In Bohemia between 1,300 to 1,400 sawmills are operated, which are driven either by steam or water power, the majority by water power. Only few of the larger steam mills can be favorably compared with American mills; the rest are small affairs, many of them having one circular or one upright saw. The whole annual production of the Bohemian forest is estimated at 6,250,000 cubic meters, consumed as follows:

Cubic meters.*

Lumber.....	835,000
Building purposes	900,000
Fiber (for packing, upholstering, and under carpets).....	600,000
Railroad ties.....	220,000
Staves.....	60,000
Shingles	22,000
Parquetts (French flooring)	20,000
Wooden wire (such as matches, etc.).....	20,000
Building canal boats	16,000
Wooden shoes	6,000
Telegraph poles.....	4,000
Resonant purposes (such as violins, etc.).....	1,200
Lead pencils	600

The balance is made up of firewood.

The leading kinds of lumber used are spruce and pine. The preference is given to spruce. It is used for all kinds of building purposes, furniture, etc. The pine is used for railroad ties. The principal lumber market is the city of Prague, which is situated nearly in the center of the country, on the river Moldau, and convenient to all the lumber

* Cubic meter=35.3 cubic feet.

districts. Most of the timber comes from Boehmerwald, which is in southwestern Bohemia, and the remainder from the mountain regions in the northeast and north-west of Bohemia. It is brought down on the rivers Elbe and Moldau and their tributaries. Bohemia exports considerable timber to Dresden, Leipsic, and Magdeburg, and certain quantities of logs are yearly sent to Hamburg for shipbuilding. A good deal of the lumber goes to Austria proper, and to southern Germany, mainly to Nuremberg and Mayence. The transmission of timber and logs to Germany is done on the river Elbe, except that to south Germany, which is forwarded by railway.

Some lumber is brought into Bohemia from Galicia, which import is explained as follows: A number of Bohemian capitalists own large tracts of timber land, with sawmills thereon, in Galicia, and the demand for lumber there is very limited, consequently it is forwarded to Bohemia, where it finds a ready market and better prices.

Then again, the Galician Government sells yearly at public auction certain lots of standing timber with the proviso that it must be manufactured into lumber in that country. Such lots of timber are generally purchased by Bohemian dealers at low prices. Besides, the labor in Galicia is cheaper than in Bohemia, and they thus acquire cheap lumber, which they bring to their Bohemian lumber yards.

IMPORTS OF LUMBER.

There is no lumber imported from the United States into Bohemia direct. Some American black walnut is used here, mainly for veneering, but this is imported from Hamburg. I have visited a lumber firm in this city that advertises American lumber for sale and inquired what kind and how much they handle, and whether they import it directly, etc. The information I have received was that recently they bought a carload of American black walnut and pitch pine from Hamburg for a trial, but were unable to say how it was going to sell. It is said that in Prague some years ago American walnut sold cheaper than the Tyrolean walnut, but now it is the other way. The trouble with the American lumber seems to be that its price is too high when it reaches here in consequence of its indirect importation. It is bought from middlemen either at Hamburg or Bremen, and in that way it passes probably through three or four hands before it reaches the consumer. It is admitted by the lumber dealers here that the market for American lumber in Bohemia alone is not large enough to warrant American lumber dealers profitable shipments. Still, I am of the opinion that a good market could be opened for American lumber, such as black walnut, elm, and others that are not produced here, by establishing an agency at Prague that would extend to the Empire of Austria-Hungary. The demand would be sufficient to warrant large ship-

ments, for the importation would be made direct, by which the costs of the present system of importation would be greatly lessened. I am satisfied that the trade would result in mutual benefit.

On account of the small amount of lumber imported into Bohemia, there are no separate statistics kept.

DUTY AND PRICES.

All kinds of lumber, timber, or logs are admitted into the Empire of Austria-Hungary free of import duty.

PRICES.

Statement showing the prices of spruce and pine boards per 100 pieces, 5.7 meters (6.233 yards) long, and of the thickness and width specified.

Edged boards.				Boards not edged.			
Thick- ness.	*Width.	Value.		Thick- ness.	Width.	Value.	
		First quality.	Second quality.			First quality.	Second quality.
<i>mm.</i>	<i>mm.</i>			<i>mm.</i>	<i>mm.</i>		
13	132	\$8.12	\$6.48	13	132	\$6.90	\$5.68
13	158	10.15	8.12	13	158	8.93	6.48
13	184	12.18	9.74	13	184	10.55	7.71
20	132	11.39	9.94	20	132	10.15	8.53
20	158	13.80	11.37	20	158	12.99	10.55
20	184	16.24	13.80	20	184	15.02	12.99
26	132	15.02	12.18	26	132	12.99	10.94
26	158	18.67	15.02	26	158	16.24	12.99
26	184	22.33	18.27	26	184	20.30	16.24
40	263	54.81	44.66	26	211	23.55	19.49
40	290	62.93	50.75	26	316	40.60	34.51
40	316	71.05	54.81	26	342	44.66	36.54
53	263	74.30	58.87				
53	290	85.26	66.99				
53	316	93.38	73.08				
80	290	120.17	99.47				
80	316	133.98	109.62				
105	316	176.61	144.13				
105	342	192.85	156.31				

*26 millimeters=1 inch.

The price of boards 6 meters (6.56 yards) long or over is 5 per cent higher.

The following is the price of planks of different kinds, which are sold per cubic meter:

Alder.....	\$10.15 to \$15.43
Basswood.....	12.18 16.24
Beech.....	8.12 12.18
White beech.....	16.24 20.30
Maple.....	16.24 20.30
Oak.....	16.24 24.36

CLIMATE.

The climate of Bohemia is humid and salubrious. The range of the thermometer is given as follows (Fahrenheit):

January	28	August	69
February	32	September	62
March	38	October	50
April	50	November	41
May	60	December	30
June	69		
July	69	Average	50

The longest day in the year is sixteen hours ten minutes. The prevailing winds are northeast and east in April, north in May, northwest in June, west and southwest in July and August, east in September, southeast in November, and southwest in December. The east and northwest winds bring clouds and dampness.

GENERAL BUILDING.

The dwellings, business and farm houses are generally built of brick or stone, and so are all other constructions. Very little wood building is carried on in Bohemia.

There are no ships built in this district. Canal-boats are built at Budweis and Worlik on the river Moldau. They are very lightly constructed, serving simply for one trip down the stream. On their arrival in Hamburg or Bremen, they are sold either in whole or broken up, part sold for lumber and the rest for firewood. I was informed that there is very little freight carried back from the seaports to Bohemia, and that it would not pay to tow the empty canal-boats back against the stream, consequently they are disposed of as stated. About 30 of such canal-boats are constructed yearly at the above-named places.

The construction of new lines of railroad in Bohemia is now very limited, only short branch lines being built here and there. Most of the ties made here are used for replacements, and the yearly consumption averages about 10,000,000. The ties are of pine or oak. They are 8 feet long, 5 inches thick, and 7 inches wide.

The price of pine ties is from 40 to 49 cents, and of oak 81 cents each. The pine ties before they are used are impregnated with a preparation of sulphuric acid in such way that the fluid is forced into every pore of the tie, which is afterwards covered with tar. So prepared, they last on the track from six to seven years.

JOHN KAREL,

Consul.

PRAGUE, *January 31, 1894.*

AMERICAN AND HUNGARIAN OAK.

[From the Pester Lloyd, of Prague, of February 1, 1894.—Translated by Consul Karel.]

When, about eight years ago, the news leaked out that a French association had decided to purchase a large tract of oak forests in the Caucasus, some fear was felt by our home dealers in oak wood. That enormous tracts of oak forest exist in the Caucasus is well known, and the apprehension that the competition of this oak would become dangerous to our home production was, therefore, justifiable. Fortunately that fear passed away without having caused any other injury than that the French association, with which an Austrian firm was also interested, met with a decided failure.

The French association sent at that time several experts for careful examination of the Caucasian oak forests. The investigation lasted six months, and the report of the delegates, headed by a member of a Vienna firm, was made in enthusiastic language, describing the magnificent virgin oak stock, and praising the excellent quality and grand dimensions of the oak trunks. The calculation made promised vast returns, but the real outcome has been disappointing to those directly interested.

The fear of Russian competition is therefore disposed of—for the present, at least; but a more serious danger is threatened from American competition.

The Americans are a practical people. Through premature alarm of the market a depression of prices in oak wood would have been anticipated, and they desire to profit by the high prices in Europe as much and as long as possible.

To begin with, official instructions* were issued from Washington to all American consuls in Europe, directing them to collect facts regarding the production and consumption of lumber, particularly regarding oak timber, its peculiarity, and availability. These instructions were carried out with astonishing thoroughness. Every one of the more important firms dealing in oak wood in Austria and Hungary received judicious interrogatories from the American consuls. In case of insufficient answers, the consuls applied for further information.

The Americans went to work very quietly, guided by the information obtained regarding the availability of the oak, and what followed? Reports came from London, Antwerp, Rouen, Hamburg, showing that American oak was brought and offered on the market of those places for fuel and sawing purposes. Our home firms dealing in oak wood did not notice this competition, because at the beginning it was of such small proportions. But gradually its importance began to be perceptible, and at the present day there are considerable importations of American oak, especially the so-called "German coopers' wood."

Staves for a vessel containing from 80 to 100 eimers (the eimer = 14.94 wine gallons) have been sold in Germany at 95.2 cents per eimer. The demand for barrels for breweries was so great that our exporters, in consequence of the continual increase in the value of oak forests, and in view of the fact that, for such large-sized staves, the oak trees were becoming scarcer, were obliged to raise their prices. Suddenly there appeared stave wood of American origin on the German market. The shipments from the United States to Hamburg increased and the prices went down little by little.

* * * * *

A shipment of several hundred thousand so-called "French staves," of American origin, arrived in Bordeaux. Thus American competition is trying to get hold of this important line of business also.

In the English lumber market the shipments of American oak timber for sawing are steadily increasing. In London, Liverpool, and Glasgow this oak timber, which

*The answers to these instructions were published by the Department of State, under the title "The Stave Trade in Foreign Countries."

is of extraordinary quality and dimensions, makes successful competition with the Slavonian wainscoting. Last year it happened for the first time that more than 30 per cent of the Slavonian wainscoting production remained unsold, and had to be stored by the owners, partly on the docks in England and partly in Fiume, and consequently the effects are already felt. In former years the wainscoting was immediately sold at the annual forest sales after the timber had been bought from the Government. It formed the quasi basis of the forest acquisitions, because in that way the money was returned the quickest, but this year there are still several lots unsold.

It is a well-known fact that our country has, during the last thirty years, experienced many surprises from the United States. Not only have American grain, bacon, and lard caused depression in our agricultural products, but in wood we have also felt the burden of American competition, which is known, so far, only to initiated circles. It is true that this competition concerned one kind of wood, which does not play such a part in the world's market as does our oak wood; we mean the great depression, about fifteen years ago, in the value of larchwood. From 1870 to 1880 the Carinthian larchwood was very much sought after and sold as dear as oak. For certain purposes preference was given to it. The Imperial and Royal arsenal at Pola used great quantities of it annually until the American pitch pine made its appearance and crowded out the larchwood not only from the world's market but from our home market. The arsenal in Pola has been importing for many years American pitch pine, which is superior in quality to larch, besides being sold in huge dimensions and, according to our ideas, at extremely low prices.

The price of larchwood fell continually and the high-priced forest tracts covered with larch timber in Carinthia have been so reduced in value that they are almost down to the level of the common pine-wood forests, while formerly they were valued five times as high, and even more. And now the United States appear very quietly in the world's markets as a competitor with our oak, which causes great uneasiness among our home oak trade.

* * * * *

In consequence of the low price of land in the United States; the fact that no labor has been expended in forest production; the highly developed means of communication, waterways extending everywhere, which are the cheapest means of transportation, etc., the Americans have great advantages over us; therefore, it is evident that this competition has all the qualifications of becoming a great danger to our oak-wood export. This danger, on account of the extraordinary spirit of enterprise of the American people and their unlimited individual liberty, is no longer theoretical but actually confronts us. One Vienna firm dealing in German coopers' wood followed carefully the transaction of the American oak-wood workers. A member of that firm made a trip to the United States for that purpose. This firm took along 400 skillful and able wood-cutters from our maritime country. These men worked, at what was there considered the very low price of \$1.50 to \$2 per day, the most choice and magnificent oak timber in great quantities.

Another Vienna firm sent a representative to the United States for the purpose of studying the oak-wood exploitation there. A Buda-Pesth house is on the point of doing the same. All this is certainly praiseworthy, but what can a single individual accomplish in such case? It would be advisable for all the Austrian and Hungarian firms dealing in oak wood to unite and send an expedition on a large scale to the United States for the purpose of studying minutely this dangerous competition. The money question for such expedition would hardly be any obstacle, and assistance from the Government, in the form of recommendations to the Austro-Hungarian consuls in the United States, would not be wanting. If only a part of what is said of this American competition is true the same fate which met our larch wood will meet our oak. It is therefore for the interest of all the dealers in oak, and especially for the Hungarian State, because it owns the largest oak forests, to fit out such an expedition without delay.

FRANCE.

BORDEAUX.

NATIVE WOODS.

The woods found in this vicinity are oak, chestnut, walnut, poplar, maple, apple, acacia, fir, cedar, buttonwood, and horse chestnut. There are no trees growing in this latitude of uncommon variety. Towards the south in the vicinity of Nice and along the littoral of the Mediterranean, are to be found certain tropical plants. These, however, serve for decorative purposes only.

KINDS OF LUMBER USED.

In the vicinity of Bordeaux are found numerous pine forests. Great quantities of hewn pine are used as supports in coal mines in France, but very little is used for building purposes. The greater part of the lumber employed for building in this, and possibly in other parts of France, is imported from Germany, Austria, Italy, Belgium, Switzerland, Roumania, and Turkey. Norway and Sweden are also important shippers of wood to France.

IMPORTS.

In 1857 the importation of lumber into France for building purposes was valued at 9,131,000 francs; in 1876, at 41,978 francs; and in 1889, at 34,824,426 francs. Great quantities of fir come from Norway and Sweden, and oak from Russia. The city of Bordeaux is a very important port in the lumber trade.

DUTY AND PRICES.

The duty charged on lumber per 210.46 pounds, is as follows: Unsawn, 19.3 cents; sawn, thirty one-hundredths inch thick or over, 29.9 cents; sawn, less than thirty one-hundredths inch, 33.8 cents.

The price of lumber varies to such an extent in this market that it would be almost impossible to give any definite figures. It is certain, however, that the United States with its boundless forests and facilities for working up and transporting lumber would find an excellent market in this city. As a proof at hand, I may state that there are already one or two houses selling no inconsiderable quantities of lumber from the United States; and for the benefit of exporters, I attach hereto a list of lumber merchants who I think would be prepared to handle the American article.

CLIMATE AND GENERAL BUILDING.

The climate in this part of France is mild, though the winters may be considered somewhat damp and rainy, and sometimes even rigorous; the summers, on the contrary, are dry and hot.

Although the Garonne River, on which Bordeaux is situated, is a fine, broad tidal waterway, the shipbuilding industry does not flourish here. There does exist a shipbuilding establishment for the construction of war vessels, but these, it is needless to say, are built of steel.

My advice to American exporters would be to send a representative to this city to study the condition of the market and offer the home material at somewhat more advantageous prices than those paid for European lumber used here. This could be readily done, and still leave a wide profit for the American shipper.

LUMBER DEALERS IN BORDEAUX.

Name.	Address.
Arlet fils	Rue des Lauriers, 1.
Beaumartin fils jeune	Chemin de Gessac, 2 et 4 (Talence).
Beaumartin (A)	Rue de Lamourous, 6.
Beaumartin (Gabl)	Rue Tanesse, 35.
Blanchard	Rue Henri IV, 16.
Boulaine & C ^{ie}	Rue de Cursol, 22.
Bourbouley & fils frères	Rue Millière, 50, and rue Leberthon, 63.
Bourgès & Troye	Quai Deschamps, 52 (La Bastide).
Boutaux & fils	Rue Jean-Burguet, 13.
Bouysson	Rue St. Bruno, 69.
Brodbeck	Quai Deschamps, 36 et 37 (La Bastide).
Camentron	Quai Deschamps, 24 (La Bastide).
Chabaud	Cours du Médoc, 30.
Corbineau	Cours de Cicé, 59.
Dalancourt	Boulevard de Caudéran, 209.
Dalbusset & C ^{ie}	Cours d'Alsace-et-Lorraine, 17.
Dortet	Chemin d'Arès, 32 et 34.
Dandel & C ^{ie}	Rue du Jardin Public, 197 à 215.
Delpent fils	Avenue Thiers, 45 (La Bastide).
Ducos	Quai de Queyries, 73 et 74 (La Bastide).
Dupuy	Rue Lagrange, 79 et 99.
Durand & Videau	Cours d'Aquitaine, 87 et 89.
Durand	Rue du Petit-Goave, 22 et 24.
Eschenauer & C ^{ie}	Quai des Chartrons, 24.
Fleuranseau	Cité Mouneyra, 5 ^{bis} , 7 et 9.
Fillol	Allées de Chartres, 59.
Girardeau	Cours St. Louis, 59.
Labau	Quai Deschamps après la Passerelle.
Laché aîné	Rue Henri IV, 42.
Laché jeune	Rue Henri IV, 96-98.
Lacouture	Rue du Port, 3.
Lapeyre	Rue St. Bruno, 104, and rue Ligier, 9 et 11.
Lataste & C ^{ie}	Rue Delord, 60.
Leblond	Rue Poirier, 6.
Léglise & C ^{ie}	Rue Lafaurie-de-Monbadon, 69.
Marot	Avenue Thiers, 19 (La Bastide).
Marré & Delol	Rue Reignier, 2.
Monier & fils frères	Rue de Lachassaigne, 67 et 69.
Pelletier	Rue Vital-Carles, 18.
Pinchon	Quai de Queyries, 35.

Lumber dealers in Bordeaux—Continued.

Name.	Address.
Plantey	Quai de Queyries, 64-65.
Purpan	Rue Lagrange, 147.
Redon	Rue Lagrange, 99.
Reynaud fils & Dumont	Rue Calvé, 43-45.
Saint-Martin	Rue d'Ornano, 145.
Spén & Van Santen	Cours d'Albret, 103.
Talbart Duclos	Rue du Parlement St. Catherine, 18.
Tétard	Quai Deschamps, 32.
Vigiér	Cours Journu-Auber, 44.
Viguiér	Ruai de Queyries, 80 à 83 (La Bastide).
Westerhuus	Quai des Chartrons, 110.

J. M. WILEY,
Consul.

BORDEAUX, May 19, 1894.

MARSEILLES.

NATIVE WOODS.

France does not consume for house-building purposes proportionately the same amount of lumber as is used in the United States, but nevertheless her native woods by no means supply the quantity annually demanded. Dwelling houses of every degree, and indeed structures for whatever purpose intended, are in the main built of stone or, at least in the construction of walls, of broken stone and brick and cement, leaving an outer surface with an appearance as nearly as possible similar to sandstone. Even in the matter of flooring, particularly in southern France, while hard and soft wood are to some extent employed, the material generally liked and usually employed is the red hexagonal tile, common to southern countries. Joists, doors, casings, and, as above stated, some flooring are of wood.

The native woods are walnut, white oak, evergreen oak, eucalyptus, olivewood, some pine, and Corsican boxwood. The characteristic features of these are, of course, generally known, excepting as to the eucalyptus, a detailed report on which was recently sent from this consulate to the Department.

KINDS OF LUMBER USED.

The lumber usually employed in building operations is pine, most of which is imported from Russia and Sweden. For the making of furniture, an industry of great proportions at Marseilles, the woods preferred are American, Circassian, and French walnut, rosewood, mahogany, maple, whitewood, thuya, and boxwood.

IMPORTS.

The following tables have been prepared, the first giving the total lumber imports, in log and sawed, into Marseilles during the year 1893; the second the imports from the United States for the same period:

Imports from all countries.

Oak:	Tons.
Unsquarred trunks	413
Squared, 80 millimeters thick and over—	
Railway sleepers	868
Other	1,021
80 to 35 millimeters thick	573
Under 35 millimeters thick	170
Total	3,045
Walnut:	
Unsquarred trunks	157
Squared, 80 millimeters thick and over	1,188
80 to 35 millimeters thick	97
Under 35 millimeters thick	1
Total	1,443
Other woods:	
Unsquarred trunks	411
Squared, 80 millimeters thick and over—	
Railway sleepers	40
Other	13,175
Total	13,626
Sawn lumber:	
80 to 35 millimeters thick and over—	
Russian	5,154
Swedish	4,645
Other	5,767
35 millimeters thick and under—	
Russian	2,917
Swedish	6,478
Other	5,719
Total	30,680
Clapboards:	
Oak—	
Austrian	7,309
American	163
Other	40
Other than oak—	
Austrian	394
American	2
Other	256
Total	8,164

Cabinet woods, blocks and logs, 2 decimeters thick and over:	Tons.
Box	423
Mahogany	248
Other	1,534
Other under 2 decimeters thick	1,302
Total	3,507
Odoriferous wood	162
Dyewoods, in logs:	
Brazilian	526
Mexican	1,491
Haitien	1,844
All other countries	5,061
Total	8,922
Paving blocks	212
Total imports at Marseilles	69,761

Imports from the United States.

Oak lumber for construction, squared or sawn, being 0.08 meter and more, in section	Tons.
Unsquarred trunks	1
Squared wood:	35
0.035 meter and under, in section	1,587
0.035 to 0.08 meter, in section	840
0.08 meter or above, in section	5,209
Oak clapboarding	163.5
Logs, fagots, and firewood	72
Cork	0.1
Charcoal from wood	6
Cabinet wood 0.2 meter and more in thickness:	
Mahogany	4.9
Other wood	15
Total	7,933.5

DUTY.

The following table shows the import duties on lumbers of various sorts, as fixed by the latest French tariff.

Duties on foreign lumber under the present French tariff.

Description of lumber.	Minimum duty.	Maximum duty.
	<i>Cents.</i>	<i>Cents.</i>
Round trunks of at least 60 centimeters circumference at the foot	12.5	19
Squared lumber, 80 millimeters and above in thickness	19	29
Squared lumber:		
35 to 80 millimeters in thickness	24	34
35 millimeters and less in thickness	34	48
Clapboarding (used solely for casks and packing cases)	14	24
Poles, stays, etc., more than 1 $\frac{1}{2}$ meters in length and not more than 60 centimeters in circumference (in this is included wood for cask hoops, etc)	06	09
Exotic wood and boxwood	Free.	Free.
Wood for cabinetmaking:		
In logs or sawn more than 2 decimeters thick	Free.	Free.
Boxwood, mahogany, and others	Free.	Free.
Boxwood, mahogany, if less than 2 decimeters thick	19	29
Odoriferous wood for dyeing	Free.	Free.

PRICES.

The appended table, prepared after obtaining prices from many dealers, gives, approximately, the selling prices of various sorts of lumber in the market of Marseilles:

Average prices of the chief kinds of lumber at Marseilles.

Walnut wood:		
French	per ton of 1,000 kilos..	\$28.90 to \$38.60
Circassian	do....	48.25 to 67.55
American	per foot..	.10
Maple	do....	.10
Rosewood	per pound..	.05
Mahogany	per ton of 1,000 kilos..	57.90
Ebony:		
Macassar	do	48.25
Gaboon	do	52.11
Madagascar	do	67.55
Ceylon	do	86.85
Facaranda:		
Africa	do	34.74
Indies	do	73.34
White wood (America)	per cubic meter..	231.60
Boxwood:		
Persia	per ton of 1,000 kilos..	77.20
Corsica	do	23.16
Oak, white:		
French	do	13.51
Hungarian	do	28.95
Oak, evergreen (French)	do	15.44
Olivewood	do	13.51
Eucalyptus	do	13.51
Thuya	do	675.50

CLIMATE.

The climate at all seasons is very nearly perfect. Winter, if indeed any season here can be properly so denominated, is sufficiently mild to remind one of early spring in the corresponding American latitude. July and August are very warm, but there is generally a cool wind from the sea, which renders life agreeable even at this, the most unpleasant season in Provence. As to what influence these conditions exercise over building operations it is difficult to estimate; but there are certainly pronounced effects, as in the use of tiles for flooring, the cool surface tempering the excessive summer heat.

TRADE OUTLOOK.

Notwithstanding apparent hindrances, whether of natural conditions, or unnatural, as in the case of tariff exactions, Southern France must have a vast quantity of foreign lumber, and that the United States do not furnish the bulk of it is solely due to the fault of her own merchants and dealers. Sailing vessels are constantly plying directly between this city and South Atlantic ports, in close proximity to the forests of Georgia and elsewhere on the Atlantic seaboard if by going

there business can be secured. Transportation rates by these vessels has been reduced to such figures that the cost of shipment of lumber from New York, or Savannah, or Pensacola to Marseilles and Toulon, unlike formerly when it was the chief item of expense, is now often less than that of transportation to the seaboard. The great difficulty in the way of enlarging the American lumber trade here, and this unfortunate impediment operates in the same manner with reference to American commodities in general, is not that the market is lacking or in any sense unwilling, but that there is a complete misunderstanding in the United States of French business methods and habits, an error which often goes so far as to seriously undertake to convert the French system to American, rather than take advantage of situations as they are found. It should not matter to an American that a Frenchman prefers to weigh his wheat by old-fashioned "steelyards" rather than by the carload in transit, moving at the rate of 20 miles an hour. And if he prefers to buy wheat to-day at a fixed price at so much per bushel to be delivered six months or a year hence, and is naturally skeptical of a commercial system wherein the values of commodities in six months or a year depend, not on supply and demand, but on the influence of "corners" and "deals," we have only ourselves to blame that the Russian merchant, appreciating the situation, has well-nigh driven our wheat from this market by taking advantage of this dissatisfaction with the ups and downs of Chicago and New York boards of trade. The Odessa dealer sends a French-speaking agent to Marseilles with instructions to sell wheat under the conditions prevailing in France, not by the trade rules in vogue in Russia. And in the same manner the Russian and Swedish lumber merchants come in person, learn the situation, and make contract with the people in their own language. The American, on the contrary, writes to his consul for the names of people dealing in particular lines of goods. The names are sent, and the American merchant writes a letter in English, inclosing a price list beginning: "We quote, etc., so much per ft. f. o. b.," as if expecting the Frenchman to learn English, and then master the intricacies of American trade abbreviations.

In a word, there is a large field here for American lumber exports. Pine, poplar, and oak are used in certain features of housebuilding referred to herein. The manufacture of furniture is an enormous industry, and American walnut is highly appreciated and wanted for the purpose. In a great manufacturing city like this, there are hundreds of uses for which all sorts of lumber are required, but which can not be enumerated here. At Toulon are situated the great shipbuilding concerns of the French Government, and the bulk of imported material should come from the United States.

To secure these markets American dealers should send here representatives who speak the language, with instructions to study the business system of the people, and to sell in accord with it rather than endeavor to bring the French to our way of thinking. Letters in Eng-

lish are of no avail. An earnest effort in the proper way can secure the lumber market of Southern France to the United States.

CLAUDE M. THOMAS,

MARSEILLES, May 19, 1894.

Consul.

GERMANY.

IMPORTS OF LUMBER.

The importation of lumber into Germany during 1892 is given as follows:

Lumber, raw or cut only with the ax or saw in cross sections, with or without bark, 54,174,000 marks; lumber, cut in longitudinal sections or otherwise cut than in cross section, 45,640,000 marks; lumber, cut or sawed, but not planed, in the longitudinal section (so-called "kantholz"), 40,200,000 marks; making the total value, 140,014,000 marks, or \$33,323,000.

Of the whole importation of lumber into Germany about 70,000,000 kilograms came from the United States.

DUTIES.*

The import duty on foreign lumber in Germany is as follows:

Description.	Non-treaty countries.	Most favored nations.
	Marks.	Marks.
Lumber, raw, cut with the ax or saw in cross sections only, with or without bark	1. 20	1. 20
Lumber, cut in the longitudinal section, or otherwise prepared or split, per cubic meter	2. 40	1. 80
Boxwood, cedar, ebony, mahogany, and cocoa	. 60	. 60
Lumber, sawn in the longitudinal section, not planed boards, sawn beams, or blocks (so-called "kantholz")	6. 00	4. 80
Cut cedar	. 25	. 25
Cut veneers	6. 00	5. 00

CHARLES H. BURKE,

HAMBURG, February 7, 1894.

Acting Consul.

* Consul-general Mason, of Frankfort on the Main, gives the following statement of duties per ton:

[Schedule A: Rates conceded to most favored nations, includes the United States. Schedule B: General rates of duty assessed on timber from nontreaty countries.]

Description.	Schedule.	
	A.	B.
	Per ton.	Per ton.
Class 1. Wood, raw, or rough, hewn with ax or saw, with or without bark, and oak staves	\$0. 50	\$0. 50
Class 2. Lumber and timber marked in the direction of the longitudinal axis, or prepared or cut otherwise than by rough hewing; barrel staves not included in class 1: unpeeled osiers and hoops, hubs, felloes, and spokes	. 75	1. 00
Class 3. Sawed lumber, unplaned boards, sawed cantlewood, and other articles sawn and hewn	2. 00	2. 28
Veneerings, unglued; unstained parts of floors	11. 90	14. 20

BAVARIA.

NATIVE WOODS.

The principal native woods of the Kingdom of Bavaria are pine, fir, oak, red and white beech. Stone pine, white pine, larch, alder, ash, maple, birch, nut, aspen, elm, and linden are also produced, but in less quantities.

KINDS OF LUMBER USED.

Pine, fir, oak, and beech are principally used for lumber, the first two being preferred.

IMPORTS OF LUMBER.

No statistics exist in reference to the importation of lumber into Bavaria, but of pine and fir only very little is imported.

American pitch pine, walnut, and teak are largely imported into Bavaria, especially for railroad wagons and furniture, and cedar in considerable quantities for lead pencils.

Oak staves and oak boards, the latter for parquetry, are mainly imported into Bavaria from Austria-Hungary, and nutwood from Italy and Switzerland.

PRICES.

The following prices are paid for lumber in Nuremberg, viz:

Pine, fir:

Unwrought.....	marks per cubic meter..	15 to 20
Sawn or cut.....	do.....	25 to 30

Oak:

Unwrought.....	do.....	40 to 70
Sawn or cut.....	do.....	80 to 110

Beech:

Unwrought.....	do.....	12 to 30
Sawn or cut.....	do.....	30 to 40

CLIMATE.

The climate in Bavaria is moderate. The average temperature is, as follows: Spring, $46\frac{1}{2}^{\circ}$ F.; summer, 64° ; autumn, 47° ; winter, 31° .

GENERAL BUILDING.

General building was carried on on a large scale until two years ago. Since that time it has decreased enormously. Shipbuilding in Bavaria is of no importance, but much lumber is used for railroad building. The largest railroad wagon factory of Bavaria, "Maschinenbau Actiengesellschaft Nürnberg," is in this city (Nuremberg), and I am informed that this company consumes about 5,000 to 6,000 cubic meters of lumber a year, one-half of which is native, the other half foreign, mostly American, bought through Hamburg, Amsterdam, and Antwerp houses.

I was told that until recently (cedar for lead pencils excepted) hardly any direct purchases from the United States were made by Bavarian firms, but always through Hamburg, Amsterdam, Rotterdam, or Antwerp houses. The imports of these American woods are composed of pitch pine, teak, walnut, etc. Cedar has always been imported direct.

EXTENSION OF LUMBER TRADE.

From my information I am led to believe that owing to the richness of the Bavarian woods a large import trade into this district of woods which grow here in abundance can hardly be expected, but in other kinds the American trade, already of importance, might be considerably extended, either by communicating directly with large manufacturing establishments, such as the wagon factory before mentioned, or by establishing branch houses or agencies at Hamburg and other seaports, and through these pushing the trade.

Another large railroad wagon factory in Bavaria is the Maffei'sche Maschinenfabrik, in Munich.

SIGMUND DÜNKELSBÜHLER,
Vice and Deputy Consul.

NUREMBERG, *February 8, 1894.*

BREMEN.

NATIVE WOOD.

The native woods are common pine, German and Scotch fir, oak, beech, poplar, ash, and alder.

KINDS OF LUMBER USED.

For building purposes Scotch fir, Indian and pitch pine are used—pitch pine is preferred for flooring. Wagon makers and turners use poplar, oak, beech, and alder. Cabinetmakers use German pine for common furniture, but prefer Italian and American walnut and mahogany for fine furniture.

IMPORTS OF LUMBER.

The quantity of lumber imported is about 200,000 tons (50,000 standards) per annum. It is imported from Norway, Finland, Sweden, Russia, German Baltic Sea, and the United States. All the pitch pine used here, and some walnut, is American.

The importation of lumber in the year 1892 was as follows, in standards of 165 cubic feet:

Sweden.....	15,263
Finland.....	8,153
Russia.....	14,391
East Prussia.....	6,813
Norway.....	5,395
United States.....	4,705
Total.....	54,720

PRICES.

The following prices, duty included, are paid for lumber per standard or 4 tons:

Norwegian	\$29.04 to \$38.08
Russian	41.65 to 60.60
Finnish	36.89 to 55.93
Swedish	27.37 to 55.93
American pitch pine.....	59.50 to 64.26
German Baltic Sea whitewood	33.32 to 57.12
Scotch fir.....	35.70 to 83.30

GENERAL BUILDING.

During the years 1891 and 1892 875 houses were built in the city of Bremen, representing a value of 10,424,126 marks (\$2,480,942).

There are several railroads in contemplation from Bremerhaven and Cuxhaven, and some branches in Oldenburg. No railroads have been built in this district during the last five years.

The following table gives the total number of vessels built in this district during the years 1888 to 1892:

Year.	Steamers.		Other vessels.		Total.	
	Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.
1888.....	3	1,253	4	3,555	7	4,808
1889.....	7	1,989	9	9,767	16	11,756
1890.....	6	4,113	11	11,163	17	15,276
1891.....	14	2,803	8	10,361	22	13,164
1892.....	20	6,743	6	13,048	26	19,791

There are six shipbuilding companies in this consular district, but only a few of them are now in operation. The building of ships has considerably decreased during the past year and several of the ship-yards have kept up their work only to give employment to their men. The ships so built were not ordered and are still for sale.

HUGO M. STARKLOFF,

Consul.

BREMEN, *January 31, 1894.*

FRANKFORT-ON-MAIN.

NATIVE WOODS.

The principal native woods are oak, white walnut, beech, white birch, ash, the Lombardy and silver poplars, and, most important of all, three evergreens, viz, the red pine (*Fichte*), the black fir (*Tannenbaum*), and the Scotch fir, which is called in German "*Kiefer*." All these trees

are planted and grown under the admirable forestry system of Germany, which has been described in detail in previous consular reports.* There are no longer any primitive forests of any consequence in this country, but the forestry laws, which make the State the guardian of its woodlands, has been so effective that the supply of all woods, except oak (a slow grower), is steadily maintained, and the German wood-pulp makers are able to use native, artificially-planted timber, and sell their product in countries which have the advantage of primeval forests. Through the cession of Alsace-Lorraine in 1870-'71, Germany acquired one-fifth of all the woodlands of France, and obtained thereby a vast supply of valuable timber. Of the above mentioned varieties the most rapid grower is the silver poplar, which in good situations attains at an age of 20 years a diameter of from 20 to 24 inches.

KINDS OF LUMBER USED.

The principal kinds of lumber used are the following: Oak for flooring, parquetry, doors, window casings, stairways, and the general interior finishing of the best class of buildings, also for furniture and the wooden parts of agricultural and other machinery.

Ash for flooring, paneled wainscoting, for railway and street cars, machine frames, the handles of agricultural utensils, and for the cheaper grades of dining and chamber furniture.

Walnut for furniture and cabinetwork, the same as in the United States. The white walnut of Germany, although artificially planted, is plentiful and cheap, but as a cabinet wood it is far inferior in beauty and richness to the black walnut wood of the United States. The latter is imported in considerable quantities for furniture, organ cases, and tables for sewing machines and typewriters, which acquire thereby the appearance of American origin.

Florida cedar is imported for the manufacture of lead pencils and penholders. Of late years the cheaper grades of pencils and penholders have been made in Germany from California and Oregon redwood, but these are specialties which employ only a limited quantity of material.

Pitch pine from the Carolinas was used here in past years for window sash and for cottage furniture, but it is said to shrink after manufacture so as to make bad joints, and so far as can be ascertained it is no longer used to any important extent.

Poplar is used for many kinds of boxes and packing cases, as well as for certain parts of cars and carriages where lightness is especially desirable.

Railway ties are made of oak, beech, and fir, but at the present low prices of metal wooden ties are being gradually replaced by ties of

*Special Consular Reports—Forestry in Europe, 1887.

iron and steel. Few new railways are in construction, and the principal demand for ties is for repairs to the lines already in operation.

Building lumber, viz, rafters, sheathing for slate and tiled roofs, doors, and window frames, painted wainscoting, and the underlaying of parquetry floors, is uniformly of pine and fir. Frame houses, shingled roofs, weatherboarded walls, board or picket fences, and wooden sidewalks are all practically unknown in German cities and villages, and as iron joists and girders and fireproof stairways are now exclusively used in all good buildings the use of lumber or timber of any kind in building is reduced to a minimum. The trusses and framework of roofs, rafters, and beams of sizes larger than 6 inches square are generally made by hewing with broadax, the straight, slender young pines which grow so profusely in the Government forests.

Oaken split staves are used for wine and beer barrels and kegs and for the large casks used in breweries and wine cellars. The smaller staves, up to a length of 4 or 5 feet, are obtained in Germany or imported from Austria-Hungary and Russia. But large oak trees are becoming scarce and costly in most parts of Europe, and the larger class of oaken staves, those from 5 to 10 feet in length, are now imported in considerable and steadily increasing quantities from Missouri, Arkansas, and Tennessee. The best American oak staves are exceedingly tough in fiber, clear and even in grain, and so far as can be ascertained are uniformly preferred by all German coopers who have used them to the large staves of European origin. There are but few large oak trees left in Germany that are available for cutting, and their value may be inferred from the fact that a single tree which was cut some months ago in the Spessart, a forest region near Frankfort, was sold for 1,200 marks (\$285).

IMPORTS OF LUMBER.

The amount of lumber imported into Germany in 1892, and during the first eleven months of 1893, was as follows, in metric tons of 2,240 pounds.

Imports of 1892.

Country.	Timber, round or rough hewn	Squared logs.	Sawn lumber.	Oak staves.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
France.....	12,928			
Netherlands.....	13,134		4,830	
Norway.....	4,082		32,042	
Austria-Hungary.....	720,561	153,224	169,509	32,046
Russia.....	1,038,114	352,504	218,537	2,159
Switzerland.....	1,558		2,273	
United States.....	11,972	4,382	53,224	7,720
Sweden.....		40,238	296,011	
Total	1,802,349	550,398	776,426	41,925

Imports first eleven months 1893.

	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Austria-Hungary.....	604, 647	101, 896	132, 249	33, 366
Russia.....	911, 875	394, 981	167, 471	2, 308
Netherlands.....	10, 041	-----	2, 868	-----
Norway.....	3, 457	-----	30, 270	-----
Sweden.....	-----	38, 279	317, 631	-----
United States.....	13, 186	4, 376	40, 319	8, 096
France.....	6, 826	-----	-----	-----
Total.....	1, 550, 032	539, 532	690, 808	43, 770

There were also imported in 1892 17,944 tons of boxwood, of which 9,760 tons came from the West Indies, 3,099 tons from the United States, and the remainder principally from the East Indies and Africa. In the foregoing statistics the difference between classes 1 and 2, i. e., "timber, round or rough hewn," and "squared logs," is this: The first class includes beams, piles, and ship timber imported in the general form in which it is to be used, while class 2 includes the blocks and logs which have been squared to save freight and duty on waste material, and which are imported for the special purpose of being sawn into veneers or other forms of fine lumber for cabinetwork or building purposes. The reason for this latter method of importation will be apparent when the classification and rates of duty in each class are explained.

PRICES.

The prices of lumber in Germany are based upon classifications and methods of measurement, which are somewhat difficult to clearly explain. The American unit of measure per "thousand feet," is not used in this country. Timber is sold by the cubic meter, equal to 35.3 cubic feet; and sawed lumber is sold at retail by the piece and at wholesale by the hundred pieces. This latter system will be illustrated by the following tabular price list, showing the wholesale rates at which pine and fir building lumber are now offered for delivery at Frankfort by lumbermen who have sawmills in the forests of Bavaria, Württemberg, and Baden. These are therefore the prices with which American building lumber would have to compete, exclusive of duty, if introduced into this market.

The subjoined list shows the four standard grades or qualities, which are designated, respectively, in German: "Rein," "ausschuss-rein," "gute," and "ausschuss," which may be translated in their order as "clear," "half clear," "good," and "culls." Under this grading or classification of qualities, the wholesale price per 100 boards or pieces,

16 feet long, from 1 to 2 inches thick, and from 6 to 14 inches wide, per cubic meter, are as follows:

Thick- ness.	Width.	Clear.	Half clear.	Good.	Culls.
<i>Inches.</i>	<i>Inches.</i>				
1	6	\$17.37	\$14.75	\$13.09	\$10.47
1	7	19.99	16.89	14.99	12.37
1	8	24.03	19.75	17.61	14.99
1	9	28.08	22.84	20.46	17.61
1	10	35.22	29.03	25.94	20.70
1	11	41.65	33.55	29.27	23.32
1	12	48.79	39.74	35.46	27.13
1	13	53.55	42.60	38.31	29.03
1	14	58.31	46.88	41.88	31.41
1½	12	69.02	54.74	44.50	33.79
1½	12	83.30	64.26	53.31	40.69
2	12	111.86	88.06	70.92	54.26

The subjoined price list is for units of 100 pieces, 16 feet long, but of special thicknesses other than 1 inch.

Quality.	Thick- ness.	Inches in width.						
		6.	7.	8.	9.	10.	11.	12.
Unsorted B, clear	<i>Inch.</i>	\$6.42	\$7.85	\$9.15	\$11.42	\$13.80	\$16.42	\$19.04
Do.	<i>Inch.</i>	7.14	8.80	10.71	12.85	15.70	18.80	21.42
Good A. clear	<i>Inch.</i>	10.23	11.90	13.80	16.66	20.94	23.56	29.03
Box boards	<i>Inch.</i>	8.80	10.47	12.37	14.99	18.08	20.70	23.56

Terms on all sales under the foregoing lists, three months' payment, or 1½ per cent discount for cash. These prices would be equivalent to about \$30 per 1,000 feet for clear pine lumber 1 inch thick, 12 inches wide, and 16 feet long. Whether American lumber can stand the freight and import duty, besides commissions, is the main question which American exporters will readily decide. Oregon pine and redwood from the Pacific coast have been imported to Bremen, Düsseldorf, Cologne, and some other ports of the lower Rhine, but it does not appear that any has come so far inland as Frankfort.

In respect to its pine lumber supply Frankfort occupies the advantageous position of being the first large city on the River Main, down which are rafted vast quantities of logs and lumber from the forests of Bavaria. Part of the logs are sawed in the woods where they are cut, but a large proportion are peeled and rafted down in whole tree lengths to Frankfort, where they are either hauled out and sawed or the smaller rafts are joined together and continue their voyage down the river to the numerous sawmills along the Rhine from Cologne to Duisburg, or to Holland, where they are either sawed for lumber and ship timber or are used as piles in the dike and dock constructions which are constantly in progress in that country. Germany is thus an exporter as well as an importer of logs and lumber, the exports under two classes, mostly pine and fir, amounting in 1892 to 276,473 tons.

CLIMATE.

The climate in this district is similar in mean temperature, rainfall and general character to that of southern Indiana or Kentucky. The extremes of heat and cold are, however, less marked here than in any corresponding climate in the United States.

GENERAL BUILDING.

There is no wooden boat or ship building of any consequence in this district. There are still many wooden vessels in service on the Rhine, but they belong mainly to the older class; the new barges and steamers, which carry most of the traffic on that river and its tributaries, are made of iron and steel.

EXTENSION OF LUMBER TRADE.

In respect to the hard and more valuable woods, the field which is offered in Germany to American exporters is much more promising.

The American black walnut is superior to any cabinet wood found in this country, and there is already a considerable import of that material, chiefly in the form of rough-hewn squared logs, which are landed at Hamburg, under the minimum duty of 50 cents per ton, and sold at auction to dealers and consumers, who saw them up into the required sizes and forms. The advantage gained by this form of importation applies similarly to all other woods. The squared log, which is entered at a duty rate of 50 cents per ton, would, if sawed into boards, be dutiable at \$2 per ton, or \$11.90 per ton if sawed into veneerings. But, on the other hand, few cabinetmakers are able to judge with certainty from outside examination what the interior quality of a large walnut or bird's-eye maple log may be, and many therefore prefer to buy their walnut and other fine lumber ready sawed and seasoned. Black-walnut timber for the German market may be of first or second quality, from 8 to 16 feet long, 6 to 18 inches wide, and 1, $1\frac{1}{4}$, $1\frac{1}{2}$, and 2 inches thick. The same dimensions apply to ash lumber designed for furniture and house-finishing purposes.

Oak flooring is largely used in this country, but the imported material must compete in price with the home-grown supply and with the oak of Austria and Russia, and whatever business is done in this line must be based on close profits. Oak or ash flooring is rarely laid straight and parallel, but is cut up into lengths of 20 to 24 inches and laid in "herringbone" or other simple patterns on an under sheathing of pine. For this purpose the oak stuff need be only 4 or 5 inches wide, and is readily furnished by small trees such as grow plentifully in some districts of Germany. Oak lumber sent to this country should be, unless otherwise specified, an inch thick, from 4 to 6 inches wide, from 4 to 16 feet long, and seasoned until its weight does not exceed

4,000 pounds per 1,000 feet. The duty would be 20 cents per 100 kilos, or about \$3.63 per 1,000 feet. Russian oak is imported and sold by the *Handelsgeschäft* at Berlin, and in order to meet this double competition American oak lumber would have to be landed at Rotterdam or Antwerp for about \$45 per 1,000, freight to destination and German import duty being additional and subsequently paid by the commission merchant or importing consumer. Ash lumber will have to be similarly landed for from \$35 to \$40 per 1,000 feet. Veneerings of bird's-eye maple or fine walnut and red birch have also been imported to some extent and are much liked, but the high duty, \$11.90 per ton, renders them rather expensive.

There is also a steady and growing demand for American oak staves of the sizes from 4 to 10 feet in length, which are used by coopers in the wine districts along the Rhine and the Moselle, as well as in Baden and Württemberg. It is worthy of note that such staves for the German market should be somewhat thicker than those of similar lengths used at home. This is for the reason that European oak is less tough and strong than American, and the coopers here have become accustomed to thicknesses which Americans have found to be disproportionate and unnecessary. The German coopers are, however, confirmed in their notions, and it will be well to concede half an inch of extra thickness to this prejudice. Dressed staves of smaller sizes, in which the item of labor forms a large part of the cost of production, can apparently be made as cheaply in Germany as in the United States.

Carriage lumber, hubs, spokes, felloes, etc., are imported from our country to some extent, but mainly by parties in Berlin, who keep a large stock and send traveling salesmen to sell supplies to carriage-builders, who in case of large purchases frequently go or send a competent foreman to Berlin, where the wood is selected, piece by piece. It is quite probable that a capable agent or local commission merchant in southern Germany could establish direct relations between American exporters and the principal carriage-makers in this section, but it would be necessary to send only selected wood, every piece of which is up to standard, for any defect in quality would be detected and soon break up a direct trade with consumers.

For the development and maintenance of direct exports of American lumber of any kind to western Germany, no agency would be so effective as an energetic, clever salesman, familiar with the German language and local methods of business, equipped with samples and authorized to receive trial orders from dealers and consumers under specified guaranties and conditions. If prices and qualities were found satisfactory, a trade could soon be established that would in the end take care of itself. If the sending of such agents is not found feasible, the next best method would be to enlist the services of local commission merchants, who should be authorized to make sales on the terms of payment that are offered by dealers who sell native or imported European woods. Exporters who may wish to open correspondence

with an experienced and capable commission merchant in this city, who has already introduced with some success several kinds of American lumber, are referred to Mr. Erwin Roelker, No. 33 Hochstrasse, Frankfurt.

FRANKFORT, February 3, 1894.

FRANK H. MASON,
Consul-General.

HAMBURG.

NATIVE WOODS.

The native woods of the Hamburg consular district are oak, red beech, red and white pine, alder, ash, and poplar. Oak is principally used for ship, mill, and bridge building, while beech is generally employed by house-builders and carriage manufacturers.

Imports of lumber into Hamburg.

Whence imported.	1892.		Average value.	1891.	
	100 kilos.	Marks.		100 kilos.	Marks.
<i>Building material.</i>					
			<i>Marks.</i>		
United States, on the Atlantic.....	47,429	328,770	7	138	2,050
British North America.....				1,597	13,500
Prussian Baltic ports.....	107,335	619,180	6	131,238	817,220
Sweden.....	142,027	616,070	4	122,000	555,050
Norway.....	76,353	316,080	4	57,732	257,070
Russian Baltic ports.....	26,682	140,390	5	38,685	168,610
Other countries.....	1,024	6,040	6	189	1,280
Total by sea.....	400,850	2,026,530	5	351,619	1,814,786
From the Upper Elbe and by railway.....	1,217,070	7,247,790	6	1,409,713	7,870,130
<i>Staves.</i>					
United States, on the Atlantic.....	8,725	83,220	10	5,037	47,440
British North America.....	169	2,000	12	146	930
Sweden.....	6,168	42,170	7	4,553	32,310
Bremen.....	349	3,960	11	318	3,090
Other countries.....	249	2,790	11	251	2,490
Total by sea.....	15,660	134,140	9	10,305	86,260
From the Upper Elbe and by railway.....	15,421	123,370	8	43,001	344,010
<i>Boxwood.</i>					
Venezuela.....	10	100	10	1,842	13,040
Great Britain.....	1,565	39,640	25	1,441	35,190
France.....	1,191	16,570	14	190	4,180
Triest.....	388	4,960	13	194	4,900
Netherlands.....	103	2,350	23		
Total by sea.....	3,257	63,620	20	3,669	57,310
<i>Walnut.</i>					
United States on the Atlantic.....	1,133,100	2,136,740	189	1,726,993	3,455,070
Asia Minor.....	14,903	35,700	240	15,138	37,130
British East India.....	2,529	3,140	124	2,169	2,000
Russian ports on Black Sea, etc.....	76,319	271,390	356	84,784	327,010
Turkey in Europe.....	15,151	44,600	294	12,804	23,750
Italy.....	15,911	29,370	185	39,671	85,490
Great Britain.....	8,647	26,960	312	34,151	105,860
France.....	11,392	23,930	210	23,610	83,380
Belgium.....	3,066	12,700	410	755	2,560
Bremen.....	1,362	3,160	232	133	510
Netherlands.....	993	2,590	261	3,817	11,510
Other countries.....	503	1,600	318	1,105	3,170
Total by sea.....	1,283,906	2,591,880	202	1,945,130	4,137,440
From the Upper Elbe and by railway.....	2,218	4,480	202	8,276	17,630

Imports of lumber into Hamburg—Continued.

Whence imported.	1892.		Average value.	1891.	
	100 cbm.	Marks.		100 cbm.	Marks.
<i>Cedar.</i>			<i>Marks.</i>		
Cuba.....	352,039	540,820	154	375,539	505,820
Costa Rica.....	120,162	104,300	87	136,267	102,010
United States on the Atlantic.....	13,694	17,810	130	41,821	69,790
Mexico on the Atlantic.....	15,043	15,910	106	36,135	44,120
British East India.....	24,871	6,510	26	26,363	7,510
Mexico on the Pacific.....	3,244	5,500	170	.....	.....
Santo Domingo.....	5,059	5,010	99	.....	.....
Paraguay.....	.....	.....	.....	77,255	53,230
Argentina.....	.....	.....	.....	49,635	43,770
Nicaragua.....	.....	.....	.....	51,429	39,500
Asia Minor.....	.....	.....	.....	2,620	3,500
Great Britain.....	69,311	60,200	87	6,537	9,510
Italy.....	22,552	40,860	181	.....	.....
France.....	18,622	13,090	70	39,675	35,900
Bremen.....	5,814	6,550	13	3,788	4,100
Other countries.....	261	200	177	1,114	400
Total by sea.....	650,672	876,760	126	848,178	919,160
<i>Ebony.</i>					
Madagascar.....	2,843	68,780	24	4,371	86,740
German West Africa.....	281	3,340	12	279	4,220
Other West Africa.....	3,147	33,390	11	2,242	27,840
British East India.....	923	15,600	17	142	3,390
German East Africa.....	.....	.....	.....	244	2,950
Other East Africa.....	548	11,570	21	44	980
Venezuela.....	310	6,000	19	155	1,160
Great Britain.....	623	14,740	24	1,627	30,900
France.....	437	7,430	17	931	16,780
Netherlands.....	101	3,900	39	311	6,050
Other countries.....	15	120	8	60	1,060
Total by sea.....	9,223	164,870	18	10,406	182,070
From the Upper Elbe.....	.....	.....	.....	39	690
<i>Rosewood.</i>					
Brazil.....	1,802	39,190	22	402	14,910
British East India.....	1,380	28,210	20	1,675	34,100
France.....	594	26,050	44	755	34,130
Great Britain.....	147	4,710	52	622	18,060
Belgium.....	.....	.....	.....	161	4,890
Bremen.....	.....	.....	.....	119	2,950
Other countries.....	.....	.....	.....	2	120
Total by sea.....	3,923	98,160	25	3,736	108,660
<i>Veneers.</i>					
United States on the Atlantic.....	75	7,050	94	45	5,840
France.....	308	50,480	127	592	73,650
Great Britain.....	100	11,060	111	145	34,520
Other countries.....	9	1,830	203	18	3,030
Total by sea.....	582	70,420	121	800	117,040
From the Upper Elbe and by railway.....	647	63,430	98	983	114,040
<i>Guaiacum.</i>					
Venezuela.....	4,749	71,830	15	2,074	35,400
United States on the Atlantic.....	531	7,070	13	.....	.....
Curaçao.....	424	5,520	13	2,478	44,960
Paraguay.....	112	2,220	20	.....	.....
Santo Domingo.....	129	1,220	9	2,979	42,800
Haiti.....	105	530	5	2,060	13,740
Great Britain.....	754	12,770	17	1,177	19,980
The Netherlands.....	287	4,540	16	.....	.....
Other countries.....	88	1,640	19	268	2,840
Total by sea.....	7,179	107,340	15	11,036	159,720
From the Upper Elbe and by railway.....	47	700	15	46	670

Imports of lumber into Hamburg—Continued.

From—	1892.		Average value.	1891.	
	100 Cbm.	Marks.		100 Cbm.	Marks.
<i>Mahogany.</i>					
			<i>Marks.</i>		
Mexico on the Atlantic	149,666	386,670	258	208,320	532,090
West Africa	120,035	223,380	186	145,768	317,610
Cuba	76,108	124,100	163	95,787	195,230
Santo Domingo	21,024	50,120	238	89,777	251,690
United States on the Atlantic	5,209	16,640	319	13,426	42,640
British East India	8,857	16,140	182	16,787	29,230
Columbia on Pacific	4,208	8,420	200	.....	.....
Haiti	875	3,230	370	.....	.....
Columbia on the Caribbean Sea	1,710	3,060	179	.....	.....
Guiana	2,141	2,600	121	.....	.....
Madeira .....	.....	.....	.....	1,142	3,700
Curaçao .....	.....	.....	.....	993	2,500
Great Britain	21,425	56,250	263	23,987	80,250
France	6,872	16,950	247	18,485	47,260
The Netherlands	2,089	7,950	381	449	1,230
Other countries	114	290	254	3,453	4,440
Total by sea	420,333	915,800	218	618,374	1,507,870

During 1893 there were imported into Lübeck as follows:

From—	Standards.*	Value.
		<i>Marks.</i>
Russia	20,000	3,500,000
Sweden	32,500	4,800,000
Prussia, coastwise	10,500	1,500,000
Total	63,000	9,800,000

* Standards of 4 tons each.

During 1892 the imports of straight timber at Kiel amounted to 117,980 cubic meters, besides 436,880 kilos of sleepers. The timber arrived from the following countries:

	Cubic meters.
German Empire	37,823
Russia	25,413
Sweden	53,534
Norway	226
The Netherlands	969
Denmark	15

Sweden and Finland supply rafters and pine and fir boards. Statistics of the importation of lumber into the port of Flensburg are not obtainable.

CLIMATE.

The climate of the Hamburg consular district is by no means a pleasant one. Easterly cold winds prevail in winter and southwesterly winds, with much rain, in summer. Last summer, however, was an exceptionally dry one, so dry that, owing to the partial failure of the hay crop, the farmers were compelled to import hay from other countries, the United States being among these.

GENERAL BUILDING.

Considerable house, ship, and railroad building is carried on in this district, and in this respect I would refer to the enormous growth of the cities of Hamburg, Altona, and Kiel, the new North Sea and Baltic Canal, with its many locks, bridges, and railways, and to the shipbuilding yards of Hamburg, Kiel, Lübeck, Flensburg, and Ros-tock.

EXTENSION OF LUMBER TRADE.

I find that the general opinion of those engaged in the importation of lumber from the United States is that the American dealers do not pay sufficient attention to the desires and wishes of the German importers; that they very often ship qualities inferior to those ordered, and are inclined to class as prime what the German dealer would call only medium lumber.

In order to extend the lumber trade of the United States the shipments of inferior lumber must be stopped, as far as practicable, so as to allow prices to recuperate. At the close of 1892 the stock of walnut logs in Hamburg was 1,400; at the close of 1893 it was 10,000. This is sufficient to supply the demand for some time to come. Notwithstanding this overstocking of the market, I am told that prime walnut logs are always salable at fair prices, the larger the logs the better the prices. Small logs are difficult to get rid of.

The low freights at which small sailing vessels carry lumber, and especially sleepers, from Sweden to the North German ports, almost preclude the competition of countries as far distant as ours.

CHAS. H. BURKE,
Vice and Acting Consul.

HAMBURG, *February 7, 1894.*

NORWAY.

NATIVE WOODS.

Southeastern Norway, where this consulate is located, was formerly well covered with natural forests. Lumber has, consequently, for several centuries past been a staple export. Norway, as a whole, is still well wooded, and it is estimated that 77,000 square kilometers (24 per cent) of the superficies of the country are still covered with forests. But they have gradually become very thin in many districts, especially on the high mountains and in marshy places. In the western districts, along the extensive seacoast, the forests have now disappeared altogether, and the only woods left are at the inner extremity of the deep and narrow fjords, sometimes over 100 miles from the open sea.

In earlier times, when wood had no value as an article of commerce, and when people had not yet begun cutting down the forests recklessly, about half of the country was wooded and the forests covered many sections now perfectly treeless. There were even forests of large oaks and other valuable trees which have now almost disappeared. The present decline in the forests is due to an excessive consumption of wood for fuel, and fencing in land, as well as to large fires in many districts.

The native woods of Norway are chiefly pine or spruce (*Abies excelsa*), fir (*Pinus silvestris*), birch (*Betula odorata*), and alder (*Alnus incana*). The two first, of which the great forests exclusively consist, grow abundantly everywhere in eastern and northern Norway, even up to the seventieth degree north latitude. Trees between one hundred and one hundred and fifty years old show a considerable size, but those now felled and floated down the rivers to the mills are generally of small dimensions, showing the rapid decline in the forests.

EXPORTS OF LUMBER.

The aggregate value of the Norwegian forests was lately estimated at about \$110,000,000, and they are supposed to give employment to nearly 14,000 persons. In 1892, for which year we have the latest official statistics, the total export of lumber of all kinds amounted to 1,894,586 cubic meters, consisting of planed and sawed lumber, hewn timbers, pit props, and other round timber, staves, and firewood.

In the above figures are, however, included about 300,000 cubic meters of lumber of Swedish production imported into Norway to be manufactured in the mills and reexported to foreign countries.

The total value of the lumber exports in 1892 was estimated at \$7,461,120.

The principal markets to which Norwegian lumber was exported in the said year were as follows:

	Cubic meters.		Cubic meters.
Great Britain	1,232,123	Sweden	40,479
France	136,096	Denmark	40,372
Holland	127,264	Africa	56,809
Belgium	116,687	Spain	37,487
Germany	67,332	Australia	24,659

Though the forests of Norway, having no legal protection, have been carelessly cut down all over the country, it does not seem likely that lumber from the United States will be needed in the near future beyond the small amount now imported chiefly for the shipyards, and valued in 1891 at \$38,056, and in 1892 at \$15,196.

KINDS OF LUMBER USED.

Pine wood is extensively used for house-building, fences, fuel, and lately to a great extent in the manufacture of pulp for paper mills. **A**

great exportation of same for foreign paper mills has also lately sprung up.

Fir is a harder and more expensive wood than pine, and is commonly used in ship and house building and for furniture. The shipyards, which have fewer wooden vessels on the docks year after year, still import some foreign woods, such as pitch pine, oak, and teak, chiefly from Russia, the German provinces on the Baltic, and also from the United States.

IMPORTS OF LUMBER.

The lumber of all kinds imported into Norway in 1892 from foreign countries is given in the official statistical tables as follows:

Sweden:		Belgium.....	\$161
By land	\$1, 097, 567	Great Britain	22, 164
By sea	57, 646	France	268
Denmark	9, 568	Spain	53
Finland	2, 090	United States	15, 196
Russia	76, 434	All other	214
Germany	53, 734		
Holland.....	12, 864	Total.....	1, 347, 959

DUTY AND PRICES.

There is no import duty on lumber in this country, nor has any export duty been levied since July 1, 1893.

The prices quoted in this market for the different kinds of lumber exported can not easily be given, but those quoted in the official statistics published for 1892 are, as I understand, correct, being based on reliable statements made at the principal exporting places, and prices have not on an average undergone any noteworthy change since then.

More than 19 decimeters in length.

	Per cubic meter.
Planed lumber, all kinds.....	\$6. 30
Sawed lumber:	
Planks, deals, boards	4. 82
Boards of inferior quality	3. 59
Spars.....	3. 75
Telegraph poles.....	3. 62
Mining timber	1. 87
Pit props	1. 87
Hewn timber	2. 00
Balk, French poutrelles, and similar	3. 62
So-called Danish lumber	2. 40
Packing-box shooks	4. 95
Staves, ordinary, sawed	3. 48
Staves of birchwood, sawed.....	5. 89
Logs for the manufacture of cellulose	1. 60
Small wood, cut full, etc.....	1. 60

CLIMATE.

This district lies between the fifty-eighth and the sixty-second and one-half degrees north latitude, and is bounded on the south by the Skager-Rack and sheltered from the sea by numerous small islands scattered along the coast and extending to the Swedish border. On the northeast and west it is surrounded by chains of high mountains, some of which rise to over 8,000 feet. The yearly mean temperature on the coast is between 42 and 44° F., but declines to 41° in this city, which is situated at the head of the long Christiania Fjord and has more of an inland climate.

While the winters are generally mild on the coast, where the thermometer has never gone below 5° above zero, in Christiania the mercury has sometimes fallen to 22° below zero, and in the northern section of this district it is often as low as 40°. But the cold waves are seldom of long duration.

The greatest heat and cold are found in the inland districts, while on the coasts the winters are mild and the summers cool. The mean temperature of the coast within this district is given for the month of July as between 57 and 63° F. In this city the summer heat sometimes rises to 90° F.

The difference noted in atmospheric temperature between the inland district and the coast, also applies to the dampness of the air. The average humidity on the coast is, as a rule, much greater than farther up in the country. Everywhere the greatest humidity prevails during the winter, and the month of May is marked by great dryness. The amount of annual rain at Christiania is only 0.5 meter to 2 meters at Bergen on the western coast, and it falls even to 33 centimeters on the mountains to the north of this district. Heavy fogs often occur here in winter. Neither wind nor rain is of great force or duration in this district. Thunderstorms are of rare occurrence in this section of Norway.

GENERAL BUILDING.

Wood is generally used for housebuilding, owing to its abundance and cheapness, even in cities of some importance. In the principal cities, however, Christiania, Bergen, and Drontheim, there are great restrictions laid on its use and brick houses are now the rule. The material used in the interior of dwelling houses, as for floors, staircases, window casings, etc., continues to be wood. The roofs are generally covered with tiles, and, lately, in the cities also with slate.

Shipbuilding has from time immemorial been one of the principal industries of this country, and the interesting copy of the ancient Viking ship of a thousand years ago, which was lately sailed over from Norway to the World's Fair at Chicago, bears witness to the great skill of the old Norse shipbuilders. At the end of 1892 the Norwegian merchant marine numbered 7,506 vessels, of an aggregate

tonnage of 1,744,993 tons, manned by 58,631 seamen. The greater part of these vessels were built in Norway, and the addition to home-built vessels in 1892 was 105 vessels (78 sailing vessels and 27 steamers), with a tonnage of 25,969 tons.

Shipbuilding during the last five years gives the following figures:

Year.	Sailing vessels.		Steamers.	
	Number.	Tonnage.	Number.	Tonnage.
1888.....	37	9,369	7	2,038
1889.....	56	7,096	20	6,285
1890.....	98	12,646	39	12,142
1891.....	93	17,442	39	12,028
1892.....	78	17,148	27	8,821

In 1892, 14 steamers of 9,792 tons, and 110 sailing vessels of 58,352 tons were bought of foreign countries, at an estimated value of \$663,568 and \$1,120,508, respectively.

The Norwegian railroads, the greater part of which lie within this district, had, up to June 30, 1893, a total length of 1,562 kilometers, of which 950 kilometers were of narrow gauge (1.067 meters) and 592 kilometers of wide gauge (1.435 meters). Their aggregate cost was about \$35,000,000. Railroad-building is now going on in several districts of southern Norway, and only a few days ago the Storthing voted about \$13,500,000 for the construction of new lines in different sections of the country.

GERH. GADE,
Consul.

CHRISTIANIA, *March 3, 1894.*

PORTUGAL.

THE AZORES.

NATIVE WOODS.

Owing to the very limited quantity of lumber imported or consumed there is little to report of interest upon this matter within the Azores. The native woods are scarcely worthy of mention with the exception of the "Faia," a small tree, from which the name of the island "Fayal" is said to be derived. It is this tree which furnishes the firewood of this island. Its grain and its natural color, somewhat resemble the wood of the butternut. As this tree never grows to be much more than a large shrub it is seldom used except for firewood. Some pine is also grown here, but so small in amount and so poor in quality as to be unworthy of consideration.

KINDS USED AND IMPORTED.

Northern or white pine and Southern pine are the principal timbers used. The imports amount to about 200,000 feet yearly at Fayal, and probably not more than 500,000 feet to all the Azores—all from the United States.

DUTY AND PRICES.

An import duty of about \$11 per 1,000 feet, varying a little with the dimensions of the lumber, is imposed.

The lumber is retailed at about \$42 per 1,000.

CLIMATE.

The climate is temperate and equable and similar to that of the Bermudas, but with cooler summers. The atmosphere is humid. The range of the thermometer (Fahrenheit) during the summer is generally from 70° to 76° or 78° rarely rising above 80° or falling below 68°. During the winter its range is generally from 60° to 64° or 66°, but during the north winds, which are not prevalent, it frequently falls below this, but rarely as low as 50°, although during the tempestuous weather of the afternoon of the 10th instant, during a slight fall of hail, the thermometer fell for a short time to 45°, but such an occurrence I am told is rare.

GENERAL BUILDING.

Building operations are very limited. A few boats for fishing and for communication with the adjacent island of Pico, are built here, but rarely any larger boats.

There are no railroads unless the two might be so called that are in use in the construction of the breakwaters that are being built at Fayal and at St. Michaels, which are only a little longer than the length of the breakwater upon which they are used.

The few buildings being constructed are of stone with the smallest possible amount of wood finishings.

LEWIS DEXTER,
Consul.

FAYAL, *January 18, 1894.*

RUSSIA.

RIGA.

NATIVE WOODS.

This is one of the largest lumber exporting districts of Russia, the value of its lumber exports amounting to about \$6,000,000 per annum.

The native woods are: White wood of superior quality, being fine-grained and mostly free from knots, and redwood (yellow), mostly of an inferior class.

There are no uncommon kinds of wood; very little oak, save in Volhynia, but some birch and alder.

KINDS OF LUMBER USED.

The white wood is preferred for lumber, the red being used more for sleepers and square timber.

DUTY AND PRICES.

The import duty is about \$7.50 per standard of 165 cubic feet.

The prices at present are as follows, per standard: 3 inches by 12 inches and 11 inches, \$35 per standard; 3 inches by 9 inches and 11 inches, \$32.50 per standard; 3 inches by 8-7 inches and 11 inches, \$25 per standard; 1 inch, about 10 per cent dearer.

CLIMATE.

The climate is somewhat like the Canadian, perhaps a little milder.

GENERAL BUILDING.

The building of small wooden sailing vessels on this coast is very limited, and only wood of the country is used in their construction.

N. P. A. BORNHOLDT,

Consul.

RIGA, *January 15, 1894.*

TURKEY IN EUROPE.

NATIVE WOODS.

The native woods in this consular district are ash, beech, chestnut, cypress, hickory, lime, maple, oak, pine, poplar, sycamore, and walnut. Of these only the pine (yellow and white), oak, and beech are used for lumber to any considerable extent.

LUMBER USED AND PRICES.

All lumber is sold in the rough, but that suitable for dressing mostly used is white and yellow pine, with some oak for flooring and natural-wood finish. For frame stuff and rough lumber oak and pitch pine are the most commonly used. The lumber on sale here is sawed quite different from that in the American market. The white pine is sold in joists from 2 to 3½ inches thick by 8 to 12 inches wide, and of various

lengths, from 10 to 26 feet. These pieces are resawed by hand with a whipsaw to the desired size for sash, doors, flooring, moldings, and other finishing material. This class of lumber varies in price according to quality and size, the larger pieces being preferred. It is sold by the piece, but the price in square feet measure is from \$16 to \$19 per 1,000 feet. The boards used for siding, partitions, and other purposes are pine, both yellow and white, and are sawed about three-eighths and three-fourths of an inch thick by 10 to 12 inches wide, and from 10 to 16 feet long. When comparatively clear of knots they sell at \$23.75 to \$26 per 1,000 feet, according to length and thickness, but when full of knots and of short lengths sell as low as \$11 per 1,000 feet. Frame material is generally sold in beams from 4½ to 12½ inches square, of various lengths, up to 37 feet. The oak beams, best quality, sell at \$24 to \$27 per 1,000 feet. The pine frame lumber is sold in similar sizes and is resawed by hand for rafters, studding, etc., and sells for from \$22 up to \$28 for best quality and long pieces. Pine flooring dressed on one side sells at \$28 to \$32 per 1,000 feet. The best grade is not entirely clear of knots and the cheapest contains some black knots.

LUMBER IMPORTED AND DUTY.

The lumber imported is mostly from the Black Sea ports; a small quantity is imported from Sweden, but none from the United States. That from Roumania and Austria is preferred by the carpenters. The latest official figures obtainable on the imports of lumber are as follows:

Year ending March 13—	Pieces.	Value.
1891.....	4, 564, 868	\$1, 139, 300
1892.....	8, 211, 051	1, 406, 527

The duty on foreign lumber imported into Turkey is uniformly 8 per cent ad valorem. The Turkish Government charges a tax of 20 per cent ad valorem for cutting timber in the forests of Turkey, and 12 per cent ad valorem duty on lumber when shipped from one province to another. These charges have greatly injured the production of home lumber and the owners of forests are making an effort to get relief, but with no apparent prospects of success.

CLIMATE AND GENERAL BUILDING.

This part of Turkey has usually a very temperate climate, but, at long intervals, the winters are quite severe.

Owing to numerous disastrous conflagrations, the authorities of Constantinople have prohibited the construction of wooden buildings, but in other parts of the Empire no such prohibition exists, and wooden

structures are the general rule. There is a reasonable amount of general improvement in Turkey, but very little shipbuilding and but few railroads are being built. The railroads already completed are substituting iron for wooden ties.

TRADE OUTLOOK.

The prospects are not flattering for the extension of the sale of American lumber in this district, owing to prices and want of shipping facilities, yet with a proper effort it might be made successful. Architects with whom I have conversed, are of the opinion that American lumber, owing to its uniformity, thereby saving labor, would be eagerly sought after by the builders if once introduced in this market.

Owing to the prejudice against innovation in the lumber business and the suspicion with which the native dealers look upon all foreigners, together with the peculiar mode of selling by the piece, it has been with the greatest difficulty that I have obtained sufficient reliable information for this report.

LUTHER SHORT,
Consul-General.

CONSTANTINOPLE, *April 26, 1894.*

UNITED KINGDOM.

BIRMINGHAM.

NATIVE WOODS.

The native woods of England are oak, elm, ash, beech, poplar, fir, walnut, chestnut, plane, holly, sycamore, hawthorne, birch, pine, lime, willow, box, larch, maple, cherry, yew, aspen, and hazel.

KINDS OF LUMBER USED.

Timber is used chiefly in building and fencing, for shipbuilding, wagon and carriage making, and the manufacture of furniture.

In building, oak is used for the better classes of work, such as staircases, window sills, doors, lintels, joists, beams, etc. It was formerly used largely for floors and wainscoting. Elm is used for purposes which are to bear extreme wet and dryness, such as water mills, waterworks pipes, pumps, and coffins. Ash is used for spear handles, carts, wheelbarrows, plows, harrows, axletrees, and oars. Beech is used for many kinds of furniture, such as chairs, stools, and bedsteads. Poplar is used for all sorts of white wooden vessels, and being very light, soles and heels for shoes. Willow is used for basket making. Holly is a very hard white wood with a close grain, and is used for dressing boxes

and other fancy articles. Walnut is largely used for drawing and dining-room furniture of the better class. The lumber of the fir tree is called deal, and is used largely for flooring, doors, windows, frames, and in ordinary building no other wood is used for this purpose. Box-wood is used for engraving upon, and the turner finds it most useful for mathematical instruments, pegs, screws, tops, chessmen, etc., being very hard and readily taking polish.

IMPORTS OF LUMBER.

The chief sources of supply are the north of Europe, especially the countries on the Baltic, Norway, Sweden, Russia, Germany, and the British North American Colonies and the United States. Considerable supplies are also drawn from Belgium, Spain, and the West Indies.

Mulhall gives the value of the timber consumed yearly in Europe as £190,250,000, and in the United States, £77,400,000. The consumption per head in Europe is 41 cubic feet; in the United States, 58 cubic feet. Timber and gold are, according to the same authority, almost the only articles which have not declined in value in the last decade.

The lumber imported into the United Kingdom from 1889 to 1892 is shown in the following table:

Kinds.	1889.	1890.	1891.	1892.
	<i>Loads.*</i>	<i>Loads.</i>	<i>Loads.</i>	<i>Loads.</i>
Hewn.....	2,393,223	2,278,171	2,250,692	2,469,139
Sawn or split	5,319,326	4,778,676	4,379,060	5,090,798
Staves	170,086	156,003	129,987	136,063
Total	7,882,635	7,212,850	6,759,739	7,696,000

* A load equals 50 cubic feet of squared timber.

The total imports from the United States in 1892 were as follows, in loads: Hewn, 165,418; sawn or split, 407,854; staves, 22,761; total 596,033.

PRICES.

Lumber and timber is sold by the load, the cubic foot, the square foot, the foot run, the ton, the pound or the number of pieces, so that it is difficult to fix a basis, owing to its lack of uniformity.

CLIMATE.

The climate is temperate and is noted for its sudden changes. There is a good deal of rain and moisture in the atmosphere. The average temperature in winter is about 40°, and in a hot summer as high as 90° and 92°, and in an ordinary summer about 75°.

GENERAL BUILDING.

There is no shipbuilding in this district, but there are extensive wagon works such as the Midland Wagon Company, the Birmingham

Wagon Company. Timber is extensively used in the Black Country here, that is, the district between Wolverhampton and Birmingham, for supporting the roofs of workings in pits.

EXTENSION OF LUMBER TRADE.

It seems to me from my observation and as the result of inquiries, that more of our lumber might find a market here for use in making furniture if close attention were given to the matter by our manufacturers, but the radical differences in tastes and customs would render necessary a close study of the local conditions here. Most of the wooden utensils used in housekeeping are made in the United States and find a sale here at good prices.

GEORGE F. PARKER,
Consul.

BIRMINGHAM, *January 30, 1894.*

DUNDEE.

NATIVE WOODS.

The native woods are oak, ash, elm, beech, birch, larch, spruce fir, and silver fir; the first five varieties mentioned being hard woods. Of these oak, ash, and elm are mostly used for agricultural implements, wagons, carts, wheels, and van making purposes, for all of which they are well adapted. Beech is used mostly for wheelwright work, such as cogs for wheels and carpenters' planes, and tools of various kinds; birch is principally used by turners for making bobbins, spools, etc.; larch is used largely for fencing purposes, and also by cartwrights in making shafts, sides, and bottoms of carts, and although not a hard wood, it is considered a very good wood for wear and strength; spruce fir and silver fir are chiefly used for fencing and coal-pit sleepers. None of them are of a lasting quality, and are only used for these and like purposes which are of a temporary nature.

IMPORTS OF LUMBER.

Most of the wood used in this district comes from the Baltic and neighboring ports, and these are generally known in the trade here as "Baltic woods." Navigation on the Baltic is open only from May to December, so that the full supply has to be imported during this period.

From the ports of Archangel and Cronstadt is shipped a very fine quality of red and white deals and battens, boards, etc., in sizes from 4 by 1 to 11 by 3; these are considered the best Baltic woods imported.

Norway sends only a very low quality of red or white deals or bat-

tens; its forests of good wood having been exhausted, it now draws large supplies from Sweden to keep its mills going.

Sweden sends large quantities of red and white deals and battens, and also baulk timber from 6 to 12 inches square. The Swedish wood can be had of very fine quality, and it is graded in quality from 1 to 6, the first four qualities being supposed to be entirely free from rot. The sizes usually sent from there run from 4 by 1 to 12 by 4, and the Swedish shippers pay more particular attention to the wants of their customers than do any other shippers.

Germany sends red timber, in large quantities, which is rather coarse, but of a healthy nature and strong fiber. Germany, also, ships large quantities of fir for railroad sleepers, which are cut to size before being shipped.

Woods from the United States are now largely superseding some of the former, notably beams and wood for churches, halls, etc., and sawn pitch pine logs which are of very fine quality and cut to dimensions required. American oak, for wagons is also largely imported, as well as all sorts of woods used in the manufacture of hubs, spokes, and felloes. Canary, or American white wood, is growing in favor, and if it could be got in longer lengths—say from 24 to 34 feet or upwards—it would doubtless be used more extensively, as it would then be suitable for ship decks, etc., the short lengths in which it is now being received rendering it unsuitable for these purposes.

It would be hard to say which kinds of lumber are preferred, the use of the various kinds being solely dependent upon the quality and price, keeping in mind the particular purpose for which it is to be used.

Timber was imported into this district during 1893 as follows, in loads of 50 cubic feet:

Imported into—	Hewn timber.	Sawn timber.	Total.	Imported into—	Hewn timber.	Sawn timber.	Total.
Aberdeen.....	7,314	41,143	48,457	Perth.....	1,199	6,073	7,272
Arbroath.....	468	2,873	3,341	Peterhead.....	697	9,169	9,866
Dundee.....	8,530	48,264	56,794	Wick.....	532	2,162	2,694
Lerwick.....	81	473	554				
Montrose.....	2,532	22,690	25,222	Total.....	20,453	132,853	154,200

No statistics are available showing these imports by countries, but it is estimated that of the 56,794 loads imported into Dundee, 4,500 came from Canada and 5,000 from the United States.

PRICES.

The prices of lumber vary considerably; during the past ten years there has been a steady increase.

The following tables give the prices of the best qualities imported into this district:

Russian:

Archangel—

First red, 11 by 3	per standard*..	\$68.12
First red, 9 by 3	do...	58.39
First white, 11 by 3	do...	36.50
First white, 9 by 3	do...	34.06
First white, 7 by 2½ and 3	do...	21.90
First red, 7 by 2½ and 3	do...	38.93

Cronstadt—

First red, 11 by 3	do...	58.39
First red, 7 by 2½ and 3	do...	40.14
First white, 11 by 9	do...	38.93
9 by 3	do...	38.28
7 by 2½ and 3	do...	25.55
6 by 2½ and 3	do...	24.33
5 by 2	do...	21.90

Swedish:

First red, 11 by 3	do...	65.69
9 by 3	do...	60.82
7 by 2½ and 3	do...	43.79
6 by 2½	do...	34.06
First white, 11 by 3	do...	38.93
9 by 3	do...	36.50
7 by 2½ and 3	do...	25.55
6 by 2½	do...	23.18

Baulk timber—

White, 6 to 8 feet	per load..	3.90
Red, 9 to 12 feet	do...	8.52

Norwegian:

White deals	per standard..	26.86
Battens	do...	21.89

German:

9 by 11 red baulk timber, 29 to 30 feet long	per load..	11.18
12" side, 26 feet long	do...	14.69
Oak straights, 18 feet average	do...	19.46

Canadian:

Yellow pine, prime logs, 20" on side	string measure..	4.86
Prime deals, 14 inches wide	per standard..	107.05
Elm	per load..	17.03
Oak, deep-sided	do...	30.43

American:

Pine hewn logs, 100 cubic feet average		12.40
Pine sawn logs, 35 cubic feet average		11.19
Prime pitch pine lumber, 1 to 1½ inch thick	per standard..	51.09
Large canary or white wood logs	per load..	24.33
Walnut (generally badly made)	do...	34.06
Wainscot oak	do...	30.43

The foregoing prices are qualified as follows: Free on board at Archangel, freight to Dundee \$9.73, per standard; free on board at Cronstadt, freight to Dundee, \$6.27 per standard; free on board at Swedish ports, freight to Dundee, \$5.84 per standard; free on board in Norwegian ports, freight to Dundee, \$4.86 per standard; German

*The standard equals 165 cubic feet; the load, 50 cubic feet.

lumber prices include costs, freight and insurance; free on board in Canadian ports, freight to Dundee, \$10.94 per standard; American prices include costs, freight, and insurance.

CLIMATE.

The climate of the east coast of Scotland is equable, and, generally speaking, drier than that of the west coast, the average annual rainfall in this district for the past ten years being 26.05 inches. No extreme variations in temperature mark the climate. In the year 1893 the highest reading of the thermometer in the shade was 86°, registered on June 18, while the lowest was 19°, on January 6. The average temperature in summer is about 60° and in winter 39°.

GENERAL BUILDING.

There are three shipbuilding yards in Dundee, from which there were five launches during 1893, viz, three ships, a bark, and a barge, the gross tonnage being 6,340. This was, however, a very bad year for the trade, the gross tonnage for the year 1892 being 21,990. The prospects at present, however, are brighter, and during the first two months of this year orders for five vessels, representing a gross tonnage of 6,661 tons, have been secured, so that it may be counted on that a much larger amount of timber will be used in this industry than during the past year.

JOHN M. SAVAGE,
Consul.

DUNDEE, *April 20, 1894.*

FALMOUTH.

NATIVE WOODS.

The supply of native woods, elm and ash, chiefly, is about equal to the demand. It appears, however, that landowners are neglecting to plant as fast as the timber is cut, especially on the duchy properties, where plantations and woods have been cleared and none planted on land that is useless for other purposes—and where good ash and elm can be grown. Others are planting larch fir, which makes rapid growth here. Besides the elm, ash, and fir, oak, beech, chestnut, and poplar grow here.

KINDS OF LUMBER USED.

The principal kinds of foreign lumber used are red and white fir from Norway and Sweden; yellow, red, and pitch pine, oak, spruce, mahogany, hickory, ash, walnut, birch, and elm from America, and mahogany from Africa. Other woods not so generally used are teak, maple, cedar, lignum-vitæ, rosewood, American whitewood, Oregon pine, kaurie pine, and greenheart.

IMPORTS AND PRICES OF LUMBER.

Lumber is imported from Norway, Sweden, Russia, Finland, Africa, Australasia, East and West Indies, and all parts of America.

The current wholesale prices, landed, are as follows:

Quebec:

Yellow pine.....	cubic foot..	\$0.30 to	\$0.60
Red pine.....	do.....	.32	.40
Oak.....	do.....	.60	.68
Elm.....	do.....	.44	.48
Ash.....	do.....	.36	.48
Birch.....	do.....	.32	.42
St. John.....	do.....	.28	.36
Nova Scotia.....	do.....	.24	.28

Deals and yellow pine:

First quality.....	standard..	97.20	121.50
Second quality.....	do.....	72.90	80.19
Third quality.....	do.....	28.56	29.76

United States:

Pitch pine, hewn.....	cubic foot..	.24	.30
Pitch pine, sawn.....	do.....	.24	.28
Oak logs.....	do.....	.30	.48

Teak, East Indies.....	load*..	46.14	51.00
Greenheart.....	do.....	29.16	34.02

Mahogany:

San Domingo.....	foot of 1 inch..	.09	.14
Cuba.....	do.....	.08	.12
Honduras.....	do.....	.08	.11
Mexico.....	do.....	.07	.13

Cedar, Havana.....	do.....	.07	.09
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Walnut:

Italy.....	do.....	.06	.10
United States.....	do.....	.06	.10

Maple (bird's-eye).....	cubic foot..	.60	.84
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Rosewood:

Rio de Janeiro.....	ton..	41.28	53.46
Bahia.....	do.....	29.16	43.74

Lignum-vitæ:

San Domingo.....	do.....	19.44	43.74
Haiti.....	do.....	14.58	29.16

Timber:

Riga.....	cubic foot..	.32	.36
Stettin.....	do.....	.32	.38
Sweden.....	do.....	.24	.30
Norway.....	do.....	.20	.22
Finland.....	do.....	.24	.28

Oak, Dantzic.....	do.....	.44	.48
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Wainscot logs:

Riga.....	do.....	.96	1.02
Memel.....	do.....	.96	1.02

*A load of lumber is usually 50 cubic feet of squared timber; 40 cubic feet of unhewn timber; and 600 superficial feet of inch planking. (See report from Newcastle-upon-Tyne.)

Deals:

First, Archangel	standard hundred..	\$80. 19	\$87. 98
First, St. Petersburg	do.....	65. 61	75. 13
Second, St. Petersburg	do.....	51. 03	58. 30
Wyburg	do.....	41. 31	46. 17
Gefle	do.....	48. 60	53. 46
Gothenburg.....	do.....	46. 17	53. 46
Finland	do.....	41. 31	48. 60

Prepared flooring:

Red, Norway	do.....	43. 74	46. 17
Mixed white, Norway	do.....	34. 62	36. 45

HOWARD FOX.

FALMOUTH, *February 26, 1894.*

GLASGOW.

NATIVE WOODS.

The native woods of Scotland cut but little figure, as they do not come in competition with any of our timber and lumber. The native woods are Scotch pine, larch, fir, and beech. They are used only in limited quantities for cheap articles; the timber is short, small, and knotty.

KINDS OF LUMBER USED.

In shipbuilding, part of the masts are of pitch pine, which is also used for flooring of decks, and for ceiling and sheathing. Elm is sometimes used for ceiling and sheathing. The deck houses are generally built of white pine and teak and the cabins are lined with various woods, teak, principally, in my observation. As nearly, if not all, the ships built on the Clyde are now made of iron, the consumption of lumber and timber in shipbuilding has materially decreased, compared with the time of wood shipbuilding. Oak is used extensively in the building of railway carriages; 80 per cent of the oak imported is used for this purpose.

White birch is preferred for spool wood by the thread manufacturers. This comes mostly from Maine, and since I have been in charge of this consulate every American vessel reporting to me has been loaded with this wood. The American birch seems to be considered of the best quality and the most marketable. The birch from Sweden, Norway, and Nova Scotia is inferior to ours. Large birch spools, or bobbins, manufactured in Sweden and Norway are used here. These might be displaced by the same size of manufactured spools from our birch. The thread-makers generally prefer to buy their spools ready-made and direct from the manufacturers. Some sycamore, or plane, and ash are also used in the manufacture of spools.

All the houses here are built of stone, and wood is only used in the interior, pine, principally. Oak and maple are used in public and expensive private buildings; hickory is used only in mechanical appliances and golf sticks. White wood or poplar is used for cabinetwork; the only superior wood which displaces it is red cedar, which is more expensive. The pine most sought after comes from the western coast of the United States, and is called here Oregon pine.

IMPORTS OF LUMBER.

I have had some difficulty in getting certain information upon this subject. The collector of customs here could not give it, unless he made a special compilation. I find, however, in a return to the House of Commons of trade and navigation, the quantity of lumber and timber, and value of the same, imported into the United Kingdom for the eleven months ending November 30, 1893, which I here give:

From—	Hewn.		Sawn, split, planed, or dressed.	
	Loads.*	Value.	Loads.	Value.
Russia.....	322, 281	\$2, 365, 191	1, 267, 306	\$12, 822, 886
Sweden and Norway.....	610, 794	3, 958, 386	1, 850, 512	18, 861, 400
Germany.....	206, 202	2, 460, 531		
United States.....	136, 139	2, 771, 300	301, 395	3, 991, 680
British North America.....			983, 479	10, 726, 573
Other countries.....			92, 509	2, 332, 020

* A load equals 50 cubic feet of squared timber; 40 cubic feet of unhewn timber; 600 superficial feet of inch plankings.

The following statement shows the amount and value of hewn wood and timber imported during the first eleven months of the years given:

Year.	Loads.	Value.
1891.....	295, 290	\$4, 000, 038
1892.....	393, 780	5, 308, 426
1893.....	301, 395	3, 991, 683

Our principal competitors in hewn timber are Sweden and Norway, Russia, Germany, and British North America, in the order named; and in manufactured lumber, Sweden and Norway, Russia and British North America, in the order named.

It will be noticed that 1893 falls below both 1891 and 1892, perceptibly 1892, in value of the imports from the United States.

The timber and lumber from Russia is principally white and red fir. It is used for flooring ceiling, and sheathing, and is considered inferior to American pine.

The timber from Germany is mostly fir also, but none of it comes to the west coast of Scotland.

The timber and lumber from Sweden and Norway are also fir, of much the same character and quality as that from Russia.

As far as this part of Scotland is concerned, our chief competitor is British North America. The supply from Canada and the British possessions consists of yellow and red pine, oak, elm, ash, and birch. It is shipped in the log, and also in deals, battens, and boards.

I find from the published statements of some of the principal lumber-dealers that the import of lumber into the Clyde from British North America for the following years was as follows:

Kinds.	1891.	1892.	1893.
Quebec:			
Yellow pine.....logs..	20,723	31,022	14,908
Red pine.....do.....	2,686	1,756	1,909
Oak.....do.....	3,573	4,578	21,02
Elm.....do.....	3,243	3,627	1,899
Ash.....do.....	1,456	2,566	2,113
Birch.....do.....	5,832	10,917	9,107
Deals and battens of all sorts.....pieces..	1,247,520	1,874,801	1,822,774
Staves.....do.....	32,551	4,810	2,367

This table includes all the lumber shipped from Canadian ports, and therefore all lumber produced in the United States, but shipped at Canadian ports. How much, if any, there is of such lumber can not be ascertained here.

There has been a great falling off in Quebec staves. The importation from the United States was 999,348 pieces in 1892, and 817,785 pieces in 1893.

Staves from the United States have practically taken the place of the Quebec article. Large quantities of staves are, however, brought into the Clyde coastwise of which no account is kept.

The imports into the Clyde in 1893, as compared with 1892, show the following percentage decrease: Wany and square yellow pine logs, 50; oak logs, 50, although the imports from the United States show an increase; elm and birch, 15 each; sawn pitch pine, 25; ash, which comes mostly from the United States, shows a slight decrease; canary whitewood and poplar, 1,059 logs in 1893, a decrease of 118 logs.

Walnut, which comes entirely from the United States, shows an increase of 33 per cent over 1892, but the wood was of an inferior quality. Maple, which was almost entirely from the United States, shows 330 logs for 1893, an increase of 26 logs.

The imports of pitch pine for the last three years were as follows:

Year.	Hewn logs.	Sawn logs.	Pieces deals.
1891	2,390	38,310	60,635
1892	2,457	77,518	57,920
1893	1,909	56,717	23,956

It has been impossible to get any figures as to the quantity of lumber imported from the United States into the Clyde, except in the few instances which I have given, but no doubt the import in 1893 was

smaller than that of 1892. The following table shows the stocks of timber on hand in the Clyde ports for several years.

Comparative statement of stocks of timber, etc., on hand in the Clyde ports, from Greenock to Glasgow, inclusive, from 1889 to 1893.

	1889.	1890.	1891.	1892.	1893.
Quebec:					
Wany board wood.....cubic feet..	658,043	692,691	585,107	853,265	674,957
Square yellow pine.....do.....	783,569	452,673	263,679	496,067	351,171
Red pine.....do.....	186,409	133,249	88,286	52,153	77,751
Oak logs.....do.....	378,836	289,658	217,087	284,326	242,252
Elm.....do.....	123,776	78,130	87,231	124,638	67,350
Ash.....do.....	92,658	24,362	26,912	28,724	40,585
Hickory.....do.....	1,632		8,366	4,857	5,629
Maple.....do.....	13,176	15,845	13,676	15,216	15,485
Pine deals:					
First quality.....do.....	468,803	163,486	155,320	293,571	311,417
Second quality.....do.....	160,560	89,646	27,992	104,510	109,417
Third quality.....do.....	411,878	182,972	197,691	212,334	457,285
Fourth quality.....do.....	421,028	449,105	226,937	267,329	139,183
Spruce deals.....do.....	171,075	423,239	35,961	313,849	188,103
Red pine deals.....do.....	67,563	187,866	52,745	131,768	120,115
St. John and lower port:					
Spruce deals.....do.....	230,307	151,045	249,026	177,568	328,677
Pine deals.....do.....	204,693	121,897	251,893	173,572	135,324
Birch logs.....do.....	73,225	83,752	46,900	106,748	85,166
Walnut logs.....do.....	22,165	1,789	37,686	18,503	32,085
Whitewood logs.....do.....	7,701	130	30,004	10,271	11,660
Greenheart.....do.....	19,745	2,302	16,637	62,302	78,041
Teak logs.....do.....	769,803	822,447	492,601	711,722	564,516
Teak planks.....do.....	26,937	28,442	11,429	15,370	38,001
Pitch pine:					
Hewn.....do.....	275,867	440,001	228,167	294,400	189,771
Sawn.....do.....	964,722	858,691	272,126	911,400	739,545
Planks.....do.....	15,794	26,006	15,297	74,121	17,380
Oak planks.....do.....	64,731	29,501	25,134	83,262	33,437
Kauri pine, logs and planks.....do.....	17,651	174,999	141,653	90,315	93,923
Mahogany.....logs.....	50	534	380	480	674
Staves:					
Pipe.....milles.....	14	14	4	14	8
Puncheon.....do.....	43	47	4	37	18

PRICES.

Wany board wood:		Per cubic foot.
21-inch (average long lengths)		\$0.62
20-inch (average long lengths)	\$0.58 to	.60
18 and 19 inch (average long lengths)	.56	.58
Short timber:		
Prime, 20 and 21 inch, average	.56	.58
First-class, 19 and 20 inch, average	.51	.54
Second quality, 18 to 20 inch, average	.28	.36
White pine:		
Prime deck planks, 50 to 55 feet, average	.48	.52
Good, fair average, 35 to 50 feet, average	.30	.36
Fair average, 35 to 45 feet, average	.23	.27
Square board wood, 35 to 40 feet, average	.34	.36
Red pine, 40 feet, average	.36	.39
Oak:		
Prime quality, 65 to 70 feet, average	.66	.75
Second quality, 65 to 70 feet, average	.42	.48
Plank	.46	.52
Elm, 45 to 60 feet, average	.42	.46
Birch, 18-inch, average	.36	.46
Walnut lumber	.60	.85
Logs, 21-inch, average, prime		1.60

Ash:		Per cubic foot.	
14 to 15 inch, average		\$0.42 to \$10.48	
17-inch average			.54
Canary, whitewood, or poplar, 14 to 15 inches	.40		.48
Maple			.36
Pitch pine:			
Hewn, 90 to 100 feet, average	.26		.30
Poor quality, 65 to 70 feet, average	.21		.24
Sawn:			
40 feet, average			.25
35 feet, average			.24
30 feet, average			.23
Deals	.18		.24
Staves:		Per 1,200 pieces.	
Heavy hogshead, 1 inch, average		\$126.52	
Prime hogshead, 1 inch, average		109.49	
Barrel, 1 inch, average		65.69	
4½ feet pipe, 1 inch average, (good quality)		180.00	
Deals, first quality:		* St. Petersburg standard.	
Broad	\$97.00 to \$134.00		
11-inch	97.00	117.00	
Nondimensions	53.00	68.00	
Ends	80.29	94.58	
Deals, second quality:			
Broad	80.29	88.80	
11-inch	73.59	80.29	
Nondimensions	53.53	68.13	
Ends	50.18	56.73	
Deals, third quality:			
11-inch	45.00	48.69	
Nondimensions	31.62	40.14	
Ends	34.00	40.14	
Deals, fourth quality:			
Broad	36.79	40.14	
11-inch	33.44	36.79	
Nondimensions	30.10	32.84	
Ends	26.76	30.10	
Red-pine deals:			
Fine	40.14	45.00	
Ordinary	30.10	40.14	
Spruce deals:			
Regulars	30.10	36.79	
Nondimensions	26.76	33.44	

CLIMATE.

Glasgow is situated as to latitude in 56° north. The climate of this city and the west coast of Scotland is decidedly a moist one. The rainfall is large, and a week without rain or Scotch mist is an exception. It is cooler in summer and warmer in winter than New York. There is but little snow except in the mountains, and many shrubs thrive here out of doors that would be winterkilled in New York City.

* Hundred, or 165 cubic feet.

There is a great deal of fog both in summer and winter, and a perceptible dampness most of the time.

GENERAL BUILDING.

General building of stores and dwellings for the last year has been up to the average. The city is growing rapidly, and many new buildings are in process of erection.

One of the great industries of Glasgow and vicinity is shipbuilding. This industry has been depressed for the last few years, and for the last year the depression has increased. It is stated by a careful compiler that the outlook for building on the Clyde is about the same for 1894 as it was in the beginning of the season for 1893.

With the contracts lately secured and the vessels now on the stocks the tonnage on hand is estimated at 188,000, compared with 208,000 January 1, 1893, 274,000 January 1, 1892, 297,000 January 1, 1891, and 322,000 January 1, 1890.

There is some railway building going on in western Scotland. An extensive subway for tram cars has been in process of construction under Glasgow for the past two years. The cars will probably be propelled by a stationary motor.

The Caledonian Railway is also building a branch about 20 miles in length, a portion of it running underground beneath this city. A railroad is also under process of construction into the western Highlands from Helensburg, opposite Greenock, to Fort William, about 75 miles in length.

EXTENSION OF LUMBER TRADE.

There is complaint made generally by lumber importers here that exporters from America—the exporters of British possessions as well as the United States—do not send lumber of the quality promised before shipment or up to the standard upon which advances to shippers are made. All shipments should be fully up to the samples shown or promises made as to the quality.

Importers here are afraid to deal with new men or to enlarge their orders beyond old and tried firms with whom they have had dealings and whose honesty they have proved.

American lumber has no serious competitor except some kauri pine from New Zealand, and that not in large quantities, but of very superior quality, so the contest for the Clyde markets lies in reality between British North America and the United States. It may be that the former has a larger supply of first-class pine from which to send its product abroad; and it has also another advantage in that its people are of the same nation as Scotland, for Canada is largely peopled by Scotchmen. A third advantage to Canada is our want of American bottoms in which to convey our lumber.

Still, as far as spool wood, staves, and white pine are concerned, the preference among dealers here is for the timber of the United States, and in oak, maple, ash, and whitewood we now have the lead.

If our dealers will make renewed efforts to enlarge their trade with the western coast of Scotland and will always send a quality of lumber up to the standard of the orders given, I think our trade can be materially increased and very speedily.

Depending upon America for her principal lumber depot from which to draw supplies, Scotland furnishes an inviting field for the enterprise of our lumber exporters, and I am satisfied that, with the proper energy and with honorable dealing, our people ought to hold their own, at least, with Canada in the lumber markets here.

ACKNOWLEDGMENTS.

I am much indebted in the preparation of this report as to prices of lumber and stocks on hand, as well as other items in relation to the lumber trade, to Messrs. Edmiston and Mitchells and Allison Cousland & Co., lumber importers of Glasgow.

ALLEN B. MORSE,
Consul.

GLASGOW, *January 18, 1894.*

HULL.

NATIVE WOODS.

The district within my official observation is not a wooded country, and yields but little timber. The land for the most part, especially in the Holderness division of Yorkshire, lies very low, and is not very favorable to the growth of timber. In and around Hull there is much humidity in the atmosphere, and the whole district is much exposed to the northeast winds.

With regard to native woods, the only timber that seriously competes with America is the English oak, which is considered to be of a hardness and durability superior to any other, unless it be the American live oak, which, however, is never seen here except as a sample.

KIND OF LUMBER USED.

The kind of lumber from the United States which is most in use in England is pitch pine. It is extremely resinous and hard. It is used for piles and in building, but not to any great extent. Pitch pine, although more durable without creosote than Baltic wood, does not take creosote so well. This is attributable to the quantity of resin in pitch pine, which has what local experts call "more nature in it" than Baltic timber.

American oak is largely used in the construction of railway carriages, and is chiefly cut into scantlings.

Oregon timber is chiefly fir. It is very large and, in the opinion of local timber merchants, has valuable properties, but they say it is too expensive for general use in consequence of the high freight.

Fancy woods from the United States, such as birch and walnut, are largely used, and there is nothing in England to compete with them.

Canadian yellow-pine timber and deals are largely consumed, but not to the extent of former years. Baltic woods are being greatly substituted for them by reason of their nearness and hardness, and the increased cost during late years of the Canadian pine. Canadian birch, walnut, elm, and oak are used to a considerable extent.

The substitution of iron for wood in shipbuilding has interfered very much with the use of North American shipbuilding woods. This, however, applies almost altogether to Canada, inasmuch as the quantity of American wood for shipbuilding purposes is very small, so small that the leading timber merchant in Hull spoke of it as scarcely worth mentioning.

The use of pitch pine has now become so general that the trade in balk timber with the Baltic has shrunk into comparatively small compass. The import of pitch pine is entirely from the United States, and, as it is now used in building and for a variety of purposes, there is every likelihood of an increased consumption.

IMPORTS OF LUMBER.

The import from the United States is very much larger than formerly, and continually increasing, whilst from Canada it is not so large as it used to be. This latter fact is accounted for by the use of Baltic woods in place of the more expensive Canadian woods. The forests in the northern districts of Canada, which consist almost entirely of pine timber, have been so much thinned that timber has become more valuable as standing trees.

The Baltic, the White Sea, Canada, and the United States are the great sources of supply for the timber market in Hull and the district. The United States are holding their own, displacing the Baltic timber, and the Quebec red pine, which has almost ceased to come. The latter of all other woods is most like the pitch pine.

The woods most commonly used in this district by English timber merchants are ash, oak, and elm. As before stated, in East Yorkshire the country has been almost cleared of wood, and the same remark would apply to North Yorkshire. The chief imports are from the Baltic, and consist of red and white wood. These woods are generally used for building purposes all over England. The imports of American pine and spruce are much larger on the west coast than on the east coast—the latter being small in comparison. As far as pine is concerned, its qualities and uses have been already indicated. Spruce is

imported on the west coast principally because of the great industries, such as the cotton and woolen industries, which require packing cases, etc. On the east coast the country is mainly agricultural and the consumption of timber is chiefly for building purposes, for which the Baltic woods are preferred. The latter are cheaper and said to be more suitable. The Baltic woods come in longer lengths, and for building purposes are considered to be more durable than either pine or spruce. The oak most used is from Sweden and Odessa.

Formerly a quantity of lathwood used to be imported from Quebec and St. John's into Hull, Liverpool, and Bristol, but of late years little or none has come. The only reason given for this is that the Riga and St. Petersburg lathwood is considered to be better.

According to one authority there is very little hard wood used in Hull. In yellow-pine deals the trade is likely to decrease in the local market for the reason that the prices are being considerably advanced on account of the increased consumption in the United States, hence there is a demand for pine deals from Sweden. Pitch pine finds an increasing consumption and is likely to further increase, according to the authority just alluded to, because it is so cheap.

The Hull Chamber of Commerce gives the total imports of timber during the last ten years, as follows:

Year.	Hewn timber.	Deals, battens, etc.	Staves.	Year.	Hewn timber.	Deals, battens, etc.	Staves.
	<i>Loads.*</i>	<i>Loads.</i>	<i>Loads.</i>		<i>Loads.</i>	<i>Loads.</i>	<i>Loads.</i>
1884.....	92, 087	320, 815	1, 319	1889.....	159, 863	452, 650	3, 312
1885.....	93, 235	367, 447	1, 879	1890.....	162, 681	383, 135	1, 595
1886.....	101, 912	325, 432	3, 221	1891.....	165, 107	371, 607	1, 895
1887.....	119, 565	351, 892	5, 696	1892.....	174, 045	412, 269	1, 605
1888.....	124, 045	388, 321	2, 557	1893.....	107, 862	407, 758	3, 680

*A load equals 50 cubic feet of square timber; 40 cubic feet of unhewn timber; 600 superficial feet of wide planking.

The imports of deals and timber have shown a marked and steady increase except in the year 1893, when, from several unfavorable conditions, the trade received a severe check. No sooner had the Baltic trade opened than the dockers, timber men, and deal carriers struck work at the instance of the Dockers' Union. This strike (a report upon which I transmitted to the Department of State*) lasted some seven weeks, during which time a large proportion of the seamen refused to sign on. The dockers' strike was followed by an extensive strike among the coal miners, which paralyzed once more the whole trade of the Humber ports. The timber trade suffered in common with all the other trades of the port with the result that there was, during the year, a total reduction of 66,000 loads of hewn timber as compared with 1892, and sawed timber deals, etc., fell very considerably from the same causes. There is, notwithstanding, every reason to believe that the import trade will completely recover in 1894.

*Published in Consular Reports for November, 1893, No. 158, p. 368.

GENERAL BUILDING.

Concerning building operations in Hull and the consequent consumption of wood used in this connection, it would appear that, taking an average, there are 800 houses built per annum. In the construction of these Baltic timber is used. An increase of domestic buildings is not anticipated, that is to say, to any extraordinary extent. The town council has formulated a new and more stringent code of building regulations, which will tend to check speculative building and increase the cost of construction. Wooden buildings are likely to become fewer and fewer under the new regulations. Moreover, wood paving, which has been largely used in the streets, now appears to be discouraged by the municipal government, and seemingly there will not be much extension in this direction.

Since the construction of the Hull and Barnsley Railway, which was opened in 1884 or 1885, there has been no railway enterprise of any moment, nor is there any probability of new undertakings or extensions for some time to come. The acquisition of the dock estate by the North-eastern Railway will result in the immediate renovation of much plant, which must involve considerable orders for wood. At the same time, with regard to warehouses on the estate, there is ample accommodation for present requirements.

In shipbuilding, wood becomes less and less in demand. Iron is almost wholly used except as regards fittings. The fishing fleet of the port, which aggregates over 400 vessels of different sizes, consists almost entirely of steam trawlers constructed of iron. The result is that very few wooden craft are built. Even the small river and dock vessels, called lighters and keels, are being built of iron. The tendency is wholly in the direction of iron and steel for shipbuilding purposes.

Having regard to the distance of the American ports, the difference in the rates of freight, and the fact that in the lumber trade with the north of Europe steamers are becoming increasingly employed, it is difficult to suggest any means of stimulating the development of imports from the United States. It is purely a question of competition which can only be determined by the prices which may rule for the time being. As before mentioned, there will in all probability be a demand and preference for the fancy woods from the United States.

EXTENSION OF LUMBER TRADE.

The two great staple trades of Hull are the seed-crushing and timber trades, and the port has hitherto enjoyed preeminence in both, so far as the northeast coast of England is concerned. Hartlepool has for some years been a keen rival, and Hull merchants have been much aggrieved by the preferential charges of the Northeastern Railway Company in favor of Hartlepool. This company, however, has acquired by purchase the docks owned by the Hull Dock Company, so that the

whole of the water acreage of the port is vested in the railway proprietors, with the exception of the Alexandria dock, which is the property of the Hull and Barnsley Railway Company. Under the altered circumstances, and seeing that the Northeastern Company has now such a vast interest in Hull, it is anticipated that, so far as local facilities for developing the timber trade go, the dock and railway owners will do all they can to promote an industry which forms such a great and integral part of the commercial life of Hull. On the score, therefore, of dock accommodation, shipping facilities, and railway charges it may be taken as a fact that there is no prospective discouragement of the timber trade. It is thought by some authorities, and those of the very highest standing, that the Manchester ship canal will eventually rob Hull of no inconsiderable share of its timber trade with the West Riding of Yorkshire and the midland counties. The diversion of traffic would affect in a corresponding measure the Humber ports, Grimsby and Goole, although the latter port is not a great timber-importing place. It is, however, impossible at present to say with any degree of confidence what influence the canal may have upon the timber trade. Much, of course, will depend upon the action of the local railway companies, and the purchase of the Hull docks would suggest that the Northeastern, which is a very powerful company, will adapt itself to the altering needs of the port.

BYRON G. DANIELS,

Consul.

HULL, *January 23, 1894.*

LEEDS.

NATIVE WOODS AND KINDS OF LUMBER USED.

The native woods are ash, elm, poplar, larch, beech, sycamore, and oak.

The kinds of foreign lumber preferred, are Baltic red and white wood, and Canadian pine and oak.

IMPORTS AND PRICES.

I can not give any estimate of the imports into this district. Large quantities come from Russia, Finland, Sweden, and Canada.

Woods are sold by the standard, which is 165 cubic feet, sawed into planks. Baltic white wood will vary from \$30 to \$50 per standard, according to size and quality; red wood, from \$37.50 to \$82.50, according to size and quality; and Canadian pine, from \$45 to \$125. Quebec oak, about 75 cents per cubic foot in the log; pine, about 50 to 60 cents per cubic foot in the log. Baltic lumber is principally sawed.

GENERAL BUILDING.

There is only the ordinary building usual in an English city, all of brick or stone. Wood is used only for interiors; hence much less lumber is required than in countries where wooden or frame houses are common. In general building Baltic wood is mostly used and a great deal of the very cheapest of it in the poorer houses. There is no railroad-building going on in this district, and, as this is an interior point, of course no shipbuilding, though there are a few canal boats built here.

EXTENSION OF LUMBER TRADE.

I should say the best way to increase trade with the United States would be for the mill owners and lumber dealers to send a full line of samples with the lowest prices to the lumber merchants of this country. There is an impression here that the American oaks are not of first-class quality, and very little is known of the long-leaf or yellow pine of the southern part of the United States, the Norway pitch pine being in common use and near at hand to the ports on the east coast of England and Scotland, through which ports it is distributed to all interior points.

NORFLEET HARRIS,

Consul.

LEEDS, *March 7, 1894.*

LIVERPOOL.

NATIVE WOODS.

The native woods used in this district are very numerous, but very few come into competition with woods from other countries. The chief native woods are oak, ash, sycamore, elm, birch, hickory, and fir.

KINDS OF LUMBER USED.

The most extensively used are oak and fir, and they are also the most valuable woods; the former are used for railway carriages, building, etc.

IMPORTS OF LUMBER.

The following table, calculated at the end of the import seasons of 1891, 1892, and 1893, shows the quantities and descriptions of lumber imported at this port during the years named, and the countries from which imported, but do not include furniture woods:

TIMBER, DEALS, ETC.

Kinds and countries.	1891.	1892.	1893.
United States:			
Oak.....cubic feet.....		273,947	374,441
Oak planks.....do.....	1,768,000	1,265,000	1,276,000
Staves.....standards.....	2,506	3,168	3,182
Pitch pine.....cubic feet.....	3,885,000	4,920,000	3,092,000
Oregon pine (logs and planks).....pieces.....	82,000	61,000	114,000
Californian redwood.....cubic feet.....		150,000	183,000
Walnut.....do.....	238,000	300,000	311,000
British North America:			
Quebec—			
Yellow pine.....cubic feet.....	857,000	1,142,000	1,173,000
Wany board.....do.....	73,000	15,000	4,000
Oak.....do.....		223,074	286,940
Elm.....do.....	128,000	110,000	94,000
Ash.....do.....	21,000	27,000	53,000
Deals, pine, spruce.....standards.....	27,767	32,005	28,577
New Brunswick and United States spruce deals.....do.....	54,160	61,445	69,031
Birch logs and planks.....cubic feet.....	657,000	1,085,000	1,003,000
St. John pine.....do.....	73,000	15,000	4,000
Other parts—			
Pine.....do.....	4,000	25,000	1,000
Red pine.....do.....	363,000	497,000	661,000
Baltic:			
Fir timber.....do.....	413,000	210,000	117,000
Deals and battens.....standards.....	9,847	8,501	8,982
Flooring boards.....do.....	15,684	13,928	15,352
Wainscot logs.....pieces.....	1,511	3,109	3,897
Oak staves.....mille.....	130	111	257
Lathwood.....fathoms.....	313	503	234
East India teak.....cubic feet.....	163,000	207,000	161,000
Green heart and mora.....do.....	196,000	192,000	117,000

FURNITURE WOODS (1893).*

Kinds and country.	Quantity.	Feet.	Average feet per log.
Mahogany: Honduras.			
Belize.....logs.....	7,184	2,174,747	302
Do.....curls.....	338	27,772	
Do.....	7,522	2,202,519	
Do.....	5	16½	
Total.....	7,527		
Cedar:			
Belize.....logs.....	151	43,194	
Do.....curls.....	5	508	286
Total.....	156	43,702	
Mahogany: Mexico, etc.			
Laguna.....logs.....	1,719	879,600	511
Tonala.....do.....	874	219,254	251
Do.....curls.....	10	2,304	
Minatitlan.....logs.....	286	100,399	351
Tlacotalpam.....do.....	82	23,946	292
Tecolutla.....do.....	51	17,579	344
Do.....	3,022	1,243,082	
Panama.....logs.....	1,837	551,054	
Do.....do.....	126	56,820	309
Do.....curls.....	52	4,054	
Do.....	5,037	1,855,010	
Do.....scantling.....	226	12,417	
Do.....	5,263	1,867,427	
East Indian.....logs.....	29	19,353	667
Laguna.....do.....	414	228,536	552
Panama.....do.....	287	86,100	300
Do.....scantling.....	112	7,815	
Laguna.....curls.....	62		
Tecolutla.....logs.....	96		
Do.....	6,263	2,209,231	
Panama.....do.....	75		198½
Do.....scantling.....	897		199½
Total.....	7,235		

*As given in a printed statement transmitted by the consul.

† Tons.

FURNITURE WOODS (1893)—Continued.

Kinds and country.		Quantity.	Feet.	Average feet per log.
<i>Mexico, etc.—Continued.</i>				
Cedar:				
Laguna.....	logs..	74	31,354	423
Minatitlan.....	do.....	66	29,266	443
Tecolutla.....	do.....	6	3,312	552
South American.....	do.....	61	6,224	102
Laguna.....	do.....	11	6,065	551
		218	76,221	
South American.....	do.....	67	*604	
Do.....	do.....	542		
Total.....		827		
<i>Cuba.</i>				
Mahogany:				
Santa Cruz.....	logs..	633	51,420	81
Do.....	curls..	29	964	
Nuevitas.....	logs..	884	78,603	89
Cardenas.....	do.....	360	39,349	109
Santiago.....	do.....	316	48,543	153
Santa Cruz.....	do.....	1,239	82,474	66
Nuevitas.....	do.....	1,753	142,026	81
Cardenas.....	do.....	67	9,057	135
Total.....		5,281	452,436	
Cedar:				
Santa Cruz.....	logs..	1,089	76,477	70
Cardenas.....	do.....	100	19,218	192
Santiago.....	do.....	41	5,656	138
Santa Cruz.....	do.....	1,003	76,200	76
Nuevitas.....	do.....	276	21,600	78
Total.....		2,509	199,151	
<i>San Domingo.</i>				
Mahogany:				
City St. Domingo.....	logs..	1,939	185,714	95
Do.....	curls..	1,111	10,180	
Porto Plata.....	logs..	979	196,053	200
Do.....	do.....	476	36,944	77
Do.....	curls..	900	10,019	
City St. Domingo.....	logs..	232	13,019	56
Do.....	curls..	50	813	
		5,687	452,742	
City St. Domingo (round).....	logs..	148	*21	
Do.....	do.....	40	*9	
Do.....	do.....	391	*20	
Total.....		6,266		
<i>Africa.</i>				
Mahogany:				
Axim.....	logs..	4,423	1,920,908	434
Assinee.....	do.....	3,732	1,662,442	448
Grand Bassam.....	do.....	1,212	415,467	343
Chama.....	do.....	515	164,155	318
Princes.....	do.....	317	84,911	267
Sundry ports.....	do.....	1,136	437,552	385
		11,335	3,685,435	
Chiefly from Axim and Assignee.....	do.....	543	241,222	
		11,878	4,926,657	414
From Axim, etc.....	do.....	202		
		12,080		
Sundry ports (round).....	do.....	121	*143	
Total.....		12,201		
Cedar:				
Sundry ports.....	do.....	15	6,799	453
Do.....	do.....	1	*24	
Total.....		16		

* Tons.

PRICES.

Statement showing the prices of lumber and timber at Liverpool in 1893 and 1894.

Description.	February 3, 1893.		February 3, 1894.	
Canadian.				
Yellow pine timber:				
Quebec, square wood.....cubic feet..	\$0.30 to	\$0.60	\$0.30 to	\$0.60
Wany board, square wood.....do....	.48	.64	.48	.64
St. John, 18-inch average.....do....	.36	.52	.36	.52
Dalhousie, etc.....do....	.24	.32	.24	.32
Red pine.....do....	.28	.36	.28	.36
Oak:				
First quality.....do....	.60	.68	.66	.73
Second quality.....do....	.36	.52	.36	.52
Elm.....do....	.48	.52	.44	.48
Ash.....do....	.36	.48	.36	.44
Whitewood.....do....	.36	.48	.36	.48
Birch:				
St. John.....do....	.30	.36	.28	.32
Quebec.....do....	.32	.44	.32	.44
Nova Scotia, etc.....do....	.24	.30	.24	.30
Birch planks.....do....	.18	.24	.18	.20
Masts, calliper measure:				
Red.....do....	.42	.48	.42	.48
Yellow.....do....	.42	.54	.42	.54
Spars, spruce.....do....	.20	.24	.20	.24
Deals, Quebec, yellow:				
First quality.....per standard..	97.33	121.66	97.33	121.66
Second quality.....do....	72.99	80.37	72.99	80.37
Third quality.....do....	41.36	43.79	41.36	43.79
Deals, spruce:				
St. John, Bangor, etc.....do....	28.58	29.19	28.58	29.79
Nova Scotia, etc.....do....	25.54	27.97	26.15	28.56
Boards, spruce, etc.....do....	24.33	25.54	24.93	26.14
Staves, Quebec standard:				
First quality.....per standard mille..	291.99	316.32	291.99	316.32
Second quality.....do....	170.32	218.99	170.32	218.99
Staves, W. O. puncheon:				
First quality.....per mille..	97.33	107.06	97.33	107.06
Second quality.....do....	68.13	75.42	68.13	75.42
Oars, ash.....per running foot..	.06	.08	.06	.08
Handspikes:				
Hickory, dressed.....dozen..	3.03	3.48	3.04	4.38
Rough, birch.....do....		.73		.73
Lathwood.....per fathom 4 feet..	12.16	17.03	12.16	17.03
American.				
Pitch pine:				
Hewn.....per cubic foot..	.26	.32	.24	.30
Sawn.....do....	.24	.28	.24	.28
Planks.....do....	.20	.24	.20	.24
Oak logs.....do....	.42	.60	.30	.48
Oak planks.....do....	.36	.50	.36	.48
Teakwood, East India.....per load calliper..	48.66	51.09	46.22	51.09
Greenheart.....do....	29.19	34.06	31.62	34.06
Black mora.....do....	21.89	24.33	21.89	24.33
Staves:				
New Orleans—				
Wine pipe, extra heavy.....per mille..	243.32	279.82	243.32	279.82
Hogshead, extra heavy.....do....	145.99	170.32	145.99	170.32
Barrel, extra heavy.....do....	97.33	107.06	97.23	107.06
Boston, New York, and Philadelphia—				
Extra heavy pipe.....do....	145.99	170.32	145.99	170.32
Heavy pipe.....do....	131.39	145.99	131.39	145.99
Light pipe.....do....	111.92	121.66	111.92	121.66
W. O. W. I., hogshead.....do....	102.19	111.92	102.19	111.92
Second quality, hogshead.....do....	72.99	77.86	72.99	77.86
Culls.....do....	63.26	68.13	63.26	68.13
Extra heavy barrels.....do....	97.33	107.06	97.33	107.06
Light barrels.....do....	58.39	68.13	58.39	68.13
Culls.....do....	34.06	38.93	34.06	38.93
Baltimore, Norfolk, Charleston—				
Wine pipe.....do....	72.99	121.66	72.99	121.66
Hogshead.....do....	38.93	58.39	38.93	58.39
Barrel.....do....	29.19	38.93	29.19	38.93
Furniture and fancy woods.				
Mahogany:				
Santo Domingo.....per foot of 1 inch..	.11	.16	.07	.14
Do.....do....	.11	.16	.09	.14
Cuba.....do....	.10	.14	.08	.12
Mexican and Tabasco.....do....	.07	.15	.07	.13
African and Panama.....do....	.05	.12	.05	.12

Statement showing the prices of lumber and timber at Liverpool in 1893 and 1894—Cont'd.

Description.	February 3, 1893.		February 3, 1894.	
<i>Furniture and fancy woods—Continued.</i>				
Cedar: Havana, etc.....per foot of 1 inch..	\$0.08 to	\$0.09	\$0.07 to	\$0.10
Pencil cedar.....per cubic foot..	.48	.73	.48	.73
Satinwood:				
Santo Domingo.....per foot of 1 inch..	.12	.18	.08	.14
Bahama, etc.....per ton..	19.46	29.19	19.46	29.19
Walnut:				
Italian, etc.....per foot of 1 inch..	.06	.10	.06	.10
Circassian burrs.....per ton..	24.33	97.33	24.33	97.33
American burrs.....per cubic foot..	.60	1.21	.60	1.21
Sequoia (California redwood).....	.52	.56	.44	.48
Rosewood: Bahia.....per ton..	53.53	68.13	29.19	58.39
Zebra-wood.....do..	21.89	26.76	21.89	26.76
Lignum-vitæ.....do..	19.46	43.79	19.46	43.79
Lancewood spars:				
Large sizes, fresh.....each..	2.43	3.77	1.82	2.43
Medium and small sizes, fresh.....do..	1.21	1.82	.97	1.46
<i>Miscellaneous.</i>				
Timber:				
Riga, red.....per cubic foot..	.32	.36	.32	.36
Dantzic:				
Crown.....do..	.36	.44	.36	.44
Middling and common.....do..	.30	.36	.30	.36
Memel:				
Crown.....do..	.40	.44	.40	.44
Middling and common.....do..	.30	.36	.30	.36
Stettin.....do..	.32	.38	.32	.38
Swedish.....do..	.24	.30	.24	.30
Dantzic and Riga whitewood.....do..	.24	.26	.24	.26
Norway mining timber.....do..	.20	.22	.20	.22
Oak: Stettin, Dantzic, etc.....do..	.44	.48	.44	.48
Wainscot logs:				
Riga and Memel—				
Crown.....do..	.97	.03	.97	1.03
Brack.....do..	.60	.73	.60	.73
Austrian.....do..	.85	.97	.85	.97
Spars, Norwegian.....do..	.18	.28	.18	.28
Deals, redwood.....do..				
Archangel and Onega, red—				
First quality.....per standard..	80.29	85.16	80.29	85.16
Second quality.....do..	60.82	65.69	60.82	65.69
Third quality.....do..	46.22	51.08	46.22	51.08
St. Petersburg:				
First quality.....do..	65.69	72.99	65.69	72.99
Second quality.....do..	51.08	58.39	51.08	58.39
Wyborg.....do..	41.36	46.22	41.36	46.22
Uleaborg.....do..	41.36	48.66	41.36	48.66
Gefle and Stockholm.....do..	48.66	53.53	48.66	53.53
Gothenberg.....do..	46.22	51.08	46.22	51.08
Whitewood—				
Crown.....do..	34.06	38.93	35.06	38.93
Seconds.....do..	29.19	31.62	29.19	31.12
Palings:				
Spruce,				
5 feet by 1 inch.....per 1,200 pieces..	19.46	21.89	19.46	21.89
4½ feet by ¾ inch.....do..	13.38	15.80	13.38	15.80
Baltic.....per standard..	23.11	27.98	23.11	27.98
Laths, sawn.....per mille..	3.04	3.65	3.04	3.66
Boards, whitewood, C. I. F., per standard:				
Flooring, planed—				
First and second quality, mixed.....	34.66	35.27	35.27	36.44
Third quality, mixed.....	28.58	29.19	31.62	32.84
Red, unplained.....	24.33	26.76	24.33	27.37
Lathwood, per fathom, 6 feet wide, 6 feet high:				
Dantzic—				
6 feet long.....	27.98	29.19	27.98	29.19
4 feet long.....	20.67	21.89	20.67	21.89
St. Petersburg and Rigna—				
8 feet long.....	36.49	38.93	36.49	38.93
4 feet long.....per dozen..	18.24	19.46	18.24	19.44
Handspikes, birch.....per dozen..	1.21	1.33	1.21	1.34
Treenails, locust.....per mille of 21 inches..	24.33	31.62	24.33	31.61
Oak staves:				
Dantzic, crown, pipe.....per mille of 1,200 pieces..	900.30	948.96	900.30	948.90
Memel.....do..	900.30	948.96	900.30	948.94
Bosman, barrel.....do..	97.33	121.66	97.33	121.64
Black Sea.....do..	97.33	102.19	97.33	102.11

CLIMATE.

The climate of Liverpool, though variable, is remarkably mild, compared with that of other places on the same parallel of latitude. The variation in temperature is not very great, railway and river traffic being carried on with little interruption all the year round, and the river is never frozen over in the severest winter. Neither extremes—heat or cold—are experienced, but the atmosphere is moist.

GENERAL BUILDING.

Wooden ship-building at this port has been very light during the year 1893, only 5 steamers, ranging from 5 to 20 tons, having been built, 4 of which were for foreign governments and one for the British Government. There were also 6 wooden barges of 20 tons each, built of pitch pine for the British Government. Some of the launches were of teak and some of pitch pine.

The railway carriage and wagon industry centers in Birmingham, where the principal works are located, and there is practically nothing done in this consular district in carriage or wagon building.

The timber business for the year 1893 was equal to the previous one; but a want of confidence was shown in sympathy with the unsatisfactory general trade of the country. Imports, with few exceptions, were not excessive, the greatest excess being in spruce deals.

AMERICAN WOODS.

Pitch pine.—The aggregate import has shown a considerable falling off during the year 1893, having been 37 per cent below that of the previous year, which was the heaviest on record at this port. The consumption compared favorably with the import, though less than the previous year. Still, stocks held over were rather excessive.

Hewn wood.—The season opened with a heavy stock of this wood, and although there was a large consumption, prices ruled very low, and the present stock, which consists chiefly of ordinary-sized wood, is heavier than for some years.

Sawn timber.—There has been a marked falling off in the import; but the consumption was large—much of it, however, of a forced character; consequently, the stock held over was much smaller than on the previous year, but the trade complain that the stock is still excessive. It is hoped, therefore, that shippers will make an effort to curtail the production; otherwise, dealers here say it is hopeless to expect the market to assume a healthy tone in the near future.

Deals.—These did not meet with very ready sale in this market; in fact, there seems very little demand for them and with few exceptions those imported for stowage purposes are sufficient to meet the demand.

Boards.—Boards of prime quality and cut to special sizes are getting more in favor here, and an increasing business has been done at what are stated to be fairly remunerative prices.

Oak.—The importation of logs has been large, chiefly from New Orleans and Mobile. Some of it was of fine quality, but the bulk is stated to be of medium to common quality, and therefore claimed by the dealers as difficult to sell, with the result that much of it had to be stored in the yard. Where sales were effected, very low prices were obtained. The stock is heavy.

Planks.—The importation of planks was heavy, and consisted largely of "wagon scantling," the business in which has increased very considerably of late years; but the demand has been languid, although the prices for prime quality and good specifications have been fairly maintained. Common quality was difficult to handle, and the prices ruled low. The opinion here is that the manufacture generally has improved; but the people in the trade suggest that more care should be taken in shipping prime parcels free from culls. The present stocks of planks, including a large proportion stored in outside depots, amount to about 400,000 cubic feet, which is considered much too heavy.

Boards.—During the year boards arrived freely. When of good quality and cut on the quarter, they met with fair sales. Other descriptions than this are not wanted.

Wainscot billets.—These have ceased to be imported.

Satinwood.—The import was moderate, chiefly from Mobile and New Orleans. It did not, however, meet with ready sale, and the prices were very low.

Whitewood.—The importations of whitewood were larger than the previous year. Logs and planks of really good quality sold freely at fair prices, but at the close of the year logs declined in value. An increasing business was also done in boards, principally of the best quality, which are most in demand here. Stocks held over are moderate.

Hickory.—Several parcels were brought over, which, when in the round log with the bark on and fresh, commanded what is claimed to be fair prices, viz, from 36 cents to 60 cents per foot.

Ash.—This wood was imported more freely, and found fair sale at from 30 to 48 cents per foot. Only the fresh wood of good size and color is in demand here at all.

Cherry wood.—The importation has been very limited, and realized about 66 cents per foot. Consumers like this wood, and if regular supplies could be depended on, it would find greater favor with them.

Staves.—The total import of all descriptions from the United States has been 3,182 mille, against 3,169 mille during 1892. There has been a demand throughout the year for New Orleans wine pipe, hogshead, and barrelstaves, and stocks on hand are more moderate. The W. O. W. L. were freely imported from Boston, New York, and Philadelphia, especially towards the close of the year, the consequence being that stocks have

accumulated to a considerable extent. There is poor demand, and prices have fallen, with a tendency to further decline.

Walnut.—There was a very heavy import of walnut, but much of it was of small to medium sizes, and stated to be of poor quality, and consequently brought low prices. Good-sized wood of the best quality was in active demand, and commanded throughout the year full price.

Satin walnut.—This was imported in moderate quantities from New Orleans and Mobile of good size and quality, and a few parcels of round logs from Newport News of inferior quality. The sales, however, were poor and prices low.

Mahogany.—Of the furniture woods imported into this port mahogany is by far the most extensive. The greatest quantity comes from Africa, as shown by table heretofore quoted. Complaints are made, however, that shipments have been sent along quite regardless of the wants of the trade. The rapidity with which this business has increased is simply marvelous; hence my reason for referring to it here. In the year 1890 only 257,000 feet (superficial) were imported; this year there were not less than 4,984,000 feet came forward, which is nearly equal to the entire import from all other countries. Next to Africa comes Honduras as a mahogany-shipping country, the import therefrom being the heaviest for several years and nearly double that of last year, but it all went into consumption and left the market bare. Good quality, straight and sizeable wood, always meets with ready sale, and the prices were fairly maintained.

JAMES E. NEAL,
Consul.

LIVERPOOL, *March 6, 1894.*

NEWCASTLE-ON-TYNE.

NATIVE WOOD.

The native woods of this region are of the usual hardy growth of this latitude, and are principally oak, ash, elm, pine, willow, poplar, sycamore, etc.; but little native lumber is made in England.

KINDS OF LUMBER USED.

The lumber principally used here is pitch pine, white and red fir, oak, walnut, and deals.

IMPORTS OF LUMBER.

The chief importation of lumber into Great Britain is from Norway and Sweden and ports on the Baltic, and for this part of England, the east coast, notably the Tyne ports, Sunderland, Hartlepool, Hull, and

Grimsby. The quantity of lumber imported into the Tyne for the year ending December 31, 1893, was as follows:

Kinds.	Germany.	Russia.	Norway and Sweden.	United States of America.	Canada.
	<i>Loads.</i>	<i>Loads.</i>	<i>Loads.</i>	<i>Loads.</i>	<i>Loads.</i>
Deals (boards)	3, 794	10, 626	44, 228	2, 683	3, 619
Lath wood		1, 566	173		
Sleepers	83	877	17, 510		
Pit props	3, 984	4, 849	54, 155		
Square and other timber	2, 553		12, 474	16, 844	9, 685

NOTE.—A load of lumber is usually 50 cubic feet of squared timber; 40 cubic feet of unhewn timber and 600 superficial feet of inch planking.

PRICES.

The average prices of the sorts mentioned are: Deals and battens, from £5 to £8 8s. per standard of 165 cubic feet, known as St. Petersburg standard; planed boards, about £8 8s. to £10 10s. per standard; square timber, depends on size of log; pine, average sizes, 1s. 6d. per cubic foot up to 2s. 6d. for large size; railway ties, sold by size, about 6s. per 72 running feet.

GENERAL BUILDING.

This consular district is one of the most important shipbuilding districts in the United Kingdom, but the material used is exclusively iron. No important structures of wood are ever erected in England.

EXTENSION OF LUMBER TRADE.

The trade here is a very old-established one, and the dealers are well aware of all the world's sources of supply. The cost to deliver here is the principal question to consider, and in this the sea freight cuts the chief figure. For the class of lumber here mentioned the long Atlantic voyage can not be expected to successfully compete with the shorter one from the adjacent ports of the Baltic.

WM. S. CAMPBELL,
Consul.

NEWCASTLE-ON-TYNE, *February 15, 1894.*

POLYNESIA.

HAWAIIAN ISLANDS.

NATIVE WOODS.

The koa is the only native wood which has any commercial value. This wood is comparatively rare, and is used for furniture and decorative purposes.

KINDS OF LUMBER USED.

The kinds of lumber used here are Puget Sound fir, spruce, and cedar; California redwood, oak, ash, and hickory.

IMPORTS AND DUTY.

All the timber used here is imported from the United States. About 15,000,000 feet are imported annually.

There is no import duty on American lumber. A duty of 10 per cent is exacted on lumber from other countries.

PRICES AND CLIMATE.

Puget-Sound fir sells for from \$18 to \$20; spruce (clear-surfaced), \$37, and cedar, \$80 to \$100 per 1,000 feet. Oak and ash (for carriage work) costs \$160, and hickory \$200 per 1,000.

The climate is mild and pleasant.

GENERAL BUILDING.

There is no shipbuilding in this country; there is, however, a small amount of ship-repairing.

Railroads are built from time to time on the various plantations on the Islands, and are used for conveying the sugar cane from the fields to the mills.

ELLIS MILLS,
Consul-General.

HONOLULU, *April 28, 1894.*

NEW CALEDONIA.

NATIVE WOODS.

The native woods of New Caledonia may be classed as follows: Ornamental and fruit trees, among which may be included all the palm kind.

The orchidaceæ are numerous in the woods of the colony.

Useful woods for building, furniture, or mechanical purposes are numerous, but being mostly situated in places difficult of access form but a small item in the local industries. The coniferous sorts, which are to a small extent worked, are the kaori (*Dammara moorea*), which is the giant tree of the colony; the *Araucaria cookii*, which give straight but knotty spars from 30 to 40 meters; the *Araucaria Ruleii*, which are found in the southern part of the island, and attain about the same size as the *Araucaria cookii*, the *Storekellia prancheri*, white, rosy-grained, used for joinery work; the *Intzia melibæi* of the Isle of Pines, very good for furniture.

The hard wood kinds, used in ship and house buildings, are numerous; the *Melaleuca glaberrima*, and *Malaleuca leucodendron* are examples.

The principal hard redwood trees are as follows: The *Pleurocalyptus deplanchei*, good heavy wood of a density of 1.165; the *Spermolepis tannifera*, the *Grevillea gillivragi*; the *Stenocarpus haurifolius*, a beautiful furniture wood; the *Weinmannia parviflora*, denominated white oak—its bark is rich in tannic principles; the *Calophyllum montanum* (tamanon), one of the most useful trees here, is used in cabinet-making.

There are numerous other species, but they are of little importance in a commercial sense.

IMPORTS OF LUMBER.

The lumber preferred is that from the United States—Oregon and Washington, from which the largest quantity of wood employed in this colony is imported, say 2,000 tons yearly.* In 1893, however, there was no direct importation from the United States, as the stock on hand at the end of 1892 was considerable.

New Zealand supplies about 200 tons of kouri annually, and New South Wales about the same quantity of hard wood (blue and red gum).

PRICES AND CLIMATE.

The different sorts of lumber from all countries are sold here at from 90 to 120 francs (\$17.37 to \$23.16) per ton.

The climate of New Caledonia is tropical, but moderate and healthy, resembling the climate of the Hawaiian Islands.

GENERAL BUILDING.

The colony is making fair progress in housebuilding, but very little in shipbuilding. There are no railroads yet.

EXTENSION OF LUMBER TRADE.

The only method left to be tried here for the extension of the trade of this colony with the United States in lumber, as well as in other American goods, is the establishment of an American house of business at

* The ton mentioned in this report is the French cubic meter=35.3 cubic feet.

Noumea. In my opinion there is a fair opening for such a house here, more especially if direct communications with the Pacific States were to be created.

ACKNOWLEDGMENTS.

I am greatly indebted to Mr. A. Jeanneney, who has lived in this colony for several years as a Government officer attached to the transportation department, and one of the most scientific men of New Caledonia, for much of the information contained in this report.

L. LE MESCAM,
Consular Agent.

NOUMEA, *March 15, 1894.*

SAMOA.

KINDS OF LUMBER USED.

There is very little domestic lumber used, there being no mills here, and any that is made is sawn out by hand. The favorite building lumber is Oregon pine and California redwood. New Zealand kauri is preferred for boat building.

IMPORTS AND DUTY.

New Zealand is the only other country besides the United States from which lumber is imported into these islands. The total imports for the year ending June 30, 1893, amounted to 86,000 feet.

The import duty on lumber is 2 per cent ad valorem.

PRICES AND CLIMATE.

Rough lumber sells here for about 4 cents per foot; surfaced lumber from 5 to 7 cents.

The climate of this district is hot and damp. We seldom have three weeks without rain. The dry season, if it can be called so, is from May to October. During the other months storms may be expected, sometimes gales, and occasionally hurricanes.

GENERAL BUILDING.

Considerable building goes on here all the time. There are always one or two houses in course of construction, and repairing is constantly going on. This climate is very severe on buildings. The wood, where near the ground, or exposed to sun and rain, rots in about three years.

No shipbuilding is carried on, but many boats are built every year.

NATIVE WOODS.

The following is a descriptive list of Samoan woods:

Name of tree.	Quality.	Color.	Diameter.	Height.	Use.	Remarks.
			<i>Feet.</i>	<i>Feet.</i>		
Ifai	Soft.....	Whitish yellow...	3 to 4	40 to 60	Firewood	Edible nut (chest nut).
Ifilele.....	Hard	Mahogany	3	60	Furniture and dye	
Ifiulu	Medium	Lighter mahogany	3	60	...do	
Ifisauga	Hard	Darker mahogany	3	60	...do	
Petau	Hard, curly.	Red, yellow, and white streaks.	2	20	Boat knees veneer and ornamental work.	
Manau.....	Medium	Light gray	1	30	Furniture and veneer.	
Talie	Hard	Gray	4	80	...do	
Laupata.....	Soft	Reddish	2	20	No use	
Masame	Hard	Reddish brown	3	50 to 60	Furniture	
Tamanu	Medium	Red cedar	3	60	...do	
Pau	Hard	Dark pink	3	60	War clubs	Good for carving.
Fau	...do	Gray and yellow	3	20 to 30	Knees, stems, and timbers for boats.	
Milo.....	...do	Variegated, dark and light streaks	3	20 to 30	...do	Good for ornamental work.
Taunave.....	Medium	Brown, red, black, and white streaks.	3	20 to 30	...do	Makes nose and mouth bleed when working it.
Mamala	...do	Blood red	3	50	Furniture	
Tuleilo	Hard	Reddish	3	50	...do	
Fuafua	Soft	White	3	60	Firewood	Splits well.
Maulili	Hard	Yellow	3	80	Boat building	
Paumuli	...do	Black	4	80	Gateposts	Does not rot in the ground.
Tava	...do	Dark	2 to 3	60	Furniture	
Vi	Soft	Light	3	70	No use	Fruit tree.
Manupau	Hard	Pink	3	60	War clubs	
Asi	...do	Red	1	20 to 30	Wharf piles	Bastard sandalwood.
Tavae	Medium	Light yellow	3	50	Boat boards	Similar to white cedar.
Mamalava	Soft.....	White	2	80	Shingles	Similar to white pine.
Mangrove	Hard	Rosewood	1	18	Dye, firewood, and piles.	
Aloalo	...do	Light	1	30	Gateposts	
Cocconut .....	.....	.....	.....	.....	.....	.....

W. BLACKLOCK,
Vice-Consul-General.

APIA, April 24, 1893.

SUPPLEMENT.

The following reports are reprints from the regular issues of the monthly consular reports, and embrace everything relative to wood and timber published by the Department subsequently to the issuance of the foregoing Special Consular Reports, American Lumber in Foreign Markets.

AMERICAN LUMBER IN CHINA.

Consul-General Jernigan, of Shanghai, under date of December 9, 1896, says an important article of import at Shanghai is American lumber. To date, this has principally consisted of pine lumber from the States of Oregon and Washington, though considerable redwood from California also finds an appreciative market, as does timber from British Columbia. The eastern part of China is almost denuded of trees, causing the native supply of lumber to be very limited. The regions back of Fuchau furnish considerable, not suitable for building purposes, in a foreign sense, but affording the means of a large traffic between the natives. It is from the Fuchau regions that the wood for making coffins is mostly obtained, the superstition of the Chinese permitting only certain kinds to be used for this purpose. From Hunan and other parts of western China large quantities of pine are cut and rafted down the Yangtze River, but as a rule it is of a very inferior quality. Some wood finds its way from the interior to Canton. Teak and other varieties of hard wood are imported from the East Indies, Siam, and Burmah, and some pine timber comes from Japan. Recently a lot of railroad ties were brought from Japan to Tien-Tsin. The rapid growth of Shanghai, and more especially the building of large cotton mills and silk filatures here and in other cities, have largely increased the import of pine timber during the past two years. This will appear from the following table:

Kinds.	1894.		1895.	
	Quantity.	Value in United States gold.	Quantity.	Value in United States gold.
Hard-wood beams cubic feet..	226, 036	\$141, 414	344, 396	\$137, 758
Soft-wood beams square feet..	3, 086, 805	44, 450	4, 380, 371	63, 078
Hard-wood planks.....cubic feet..	447, 557	161, 121	501, 468	180, 528
Soft-wood planks.....square feet..	13, 643, 944	196, 473	18, 769, 599	270, 282
Teak planks.....cubic feet..	24, 878	11, 942	20, 353	9, 769
Poles.....pieces..	5, 139	2, 056	9, 872	3, 949
Masts and spars.....do....	2, 774	221, 920	127	20, 320
Teak logs.....cubic feet..	33, 598	16, 127	947	203

One of the largest lumber dealers at Shanghai furnishes the following statement of sales of pine lumber made by the principal lumber firms for the years 1893-1896:

	Square feet.
1893	6,000,000
1894	6,000,000
1895	12,000,000
1896	14,000,000

The customs returns for 1896 are not yet published, but it is estimated that between 20,000,000 and 30,000,000 square feet of timber were imported during the year just closed and that there were about 11,000,000 square feet on hand. As stated, the greater quantity of the lumber comes from the United States, and the quantity imported amounted in 1896 to 14,000,000 square feet and in 1895 to 9,149,789 square feet. In this connection, these important facts may be noticed: The mills for whose construction the greater quantity of the lumber was imported are now completed, no extensive building operations are planned for 1897, and the figures given above show the market fairly supplied for ordinary demands. Dealers express the opinion that on this account the imports for 1897 will be small, but nevertheless the lumber market of China will rule favorable for American lumber, and with the more extensive introduction of western machinery and the consequent need for proper buildings the demand will steadily increase. The opening of China by railroads and the spread of western civilization will make more substantial and comfortable houses a desideratum, and the construction of such will require the use of foreign timber. Houses of foreign style have already become so popular with the natives at Shanghai that Europeans who are called here in the discharge of their duties find it difficult to secure houses for their families, and rents have, since 1894, advanced about 20 per cent. Much building is now being done to meet this need, and if the demand for the current year should not be so large as formerly, I should advise a careful study of the lumber market.

I. R. JERNIGAN,
Consul-General.

SHANGHAI, *December 9, 1896.*

AMERICAN LUMBER IN DENMARK.

The conditions in Denmark seem so favorable to American lumbermen that I deem it best to say a few words on the subject. In the first place, the local supply is wholly inadequate to the demand, and Denmark depends on outside sources for her timber. In fact, it is the effort both of the Government and landed proprietors to cultivate and not cut down the forests.

The lumber trade is principally supplied from Norway, Sweden, and the United States. American white oak is held in the highest esteem here, being far superior to the Danish article, which is scarce and poor in quality. One firm which I consulted carries only American oak, and is of opinion that this particular wood has splendid chances in the markets of Denmark. It is more in demand than any other American wood. Walnut, poplar, and pitch pine have also good chances here. Elm and ash are not so much used. They have been imported, but are of no importance now. Boards, planks, and sawed lumber are generally preferred and have the quickest sale.

All lumber shipped for sale in Danish markets should be thoroughly dried and seasoned, and American dealers will find it to their interest to bear this fact in mind. For instance, it is said that green walnut logs must be kept two years before using. Oak is used for furniture, shipbuilding, and house building, and should be shipped in planks and boards unless otherwise specially ordered. Walnut is used for furniture, and should always be shipped in boards. Pine is used for ship and house building; poplar for veneering, billboards, and furniture, also in the manufacture of pianofortes and carriages. Poplar is also used largely for stoppers to beer kegs, liquor barrels, etc. There is much demand for this wood, and it may be shipped in boards or logs. Maple, I think, also has a future here for veneering and inlaid work.

There is no duty on oak imported into Denmark. Other woods pay a duty of 13 öre ($3\frac{1}{2}$ cents) per cubic foot.

The opening of the free port of Copenhagen affords a good opportunity to American dealers. Lumber shipped in bulks can be stored at low rates in the ample yards of the free port and from there be distributed to the various ports of the Baltic, according to the demands of trade.

The free port being considered foreign territory, there is no duty on goods entering to be reshipped on sale. Only when sold for use in Denmark will the customary duty be exacted.

The following are some of the principal lumbermen in Copenhagen: Th. & O. Bröchner, Store Kongensgade 63; A. Chr. Hensen & Co., Agents, Österbrogade 3; Aubertin & Co., Nørrebrogade 177; Westphal, Thedin & Co., Nørrebrogade 209; Emil Mottlan, Nørrebrogade 116. American dealers can correspond directly with these firms as to prices, terms, etc.

ROBERT J. KIRK, *Consul.*

COPENHAGEN, *December 12, 1894.*

AMERICAN LUMBER IN FRANCE.

Consul Germain, of Zurich, writes September 25, 1895: I have the honor to inform you that my report on "Swiss Market for American Woods," printed in Consular Reports No. 175 (April, 1895), pages 509-515, has been copied and published by several French and German trade journals, and thus circulated among interested European parties in that line. I am in receipt this day of a letter, which I inclose, and, translated, reads about as follows:

MAUBEUGE, NORD, FRANCE, *September 23, 1895.*

MR. EUGENE GERMAIN,

United States Consul, Zurich, Switzerland:

We know that you have made a special and very complete study of the question of American woods. Would it please you to cause useful information to be given us to facilitate our wood importations? As the first important point, we can inform you that our firm can, if need be, furnish a guaranty of 1,000,000 francs (\$200,000). This is said to indicate to exporters that they can be at full ease as regards our solvency or responsibility.

Thanking you in advance, etc., we remain,

LEGRAND & JEANNESSON.

This letter, if given publicity, would, I believe, result in business to some of our wood exporters.

AMERICAN LUMBER IN SWITZERLAND.

In looking over the Swiss custom-house statistics I find that, although most of the cantons of this mountainous country have extensive and fine forests, they are not sufficient to supply Switzerland with the necessary timber and lumber. In fact this country imported last year (1893) 18,200,099 francs (\$3,502,619) of wood and manufactures of wood, while the exports of the same amounted only to about 4,000,000 francs (\$772,000), showing a surplus of imports over exports of over 14,000,000 francs (\$2,762,000), in which amount the United States participated only with 189,679 francs (\$36,608).

It is evident that the United States could secure a greater share of this Swiss trade, and in order to find out how the Swiss market could be extended to our products in this line I addressed communications to some of the interested parties, viz, dealers and importers in wood and manufacturers of boats, carriages, furniture, etc., housebuilders, etc., asking their opinion. I now beg to submit, for the benefit of our people in that line of trade, what parties here say regarding the kinds of wood required, prices, etc. I also add a tabulated statement showing the total Swiss imports during 1893 of the different kinds of lumber, timber, etc., compared with the imports from the United States during the same period, the principal sources of supply, and customs duties.

Imports of wood and manufactures of wood into Switzerland during the year ending December 31, 1893.

Article.	Total im- ports.	Imports from United States.	Principal countries of supply.	Customs duty per 100 kilograms.*
Firewood:	<i>Francs. †</i>	<i>Francs. †</i>		<i>Francs. †</i>
Hard	1,811,553		Germany	0.02
Soft	1,110,327		do	.02
Turf	381,293		Germany and Nether- lands	.02
Tanning bark	992,039		France	.02
Charcoal	626,586		Germany	.10
Timber, rough, or cut with the ax:				
Hard	494,946	9,792	do	.15
Soft	1,094,369	18,872	Germany and Austria ..	.15
Staves, rough	413,694		Austria	.15
Other oak wood, cut in longitudinal sec- tion, except veneers	1,303,296	320	Germany, Austria, France, and Italy ..	.40
Lumber (boards, laths, and shingles):				
Hard	304,342	9,120	Germany and Austria ..	.70
Soft	3,185,514	41,240	Austria	.70
Beams and railway ties other than oak ..	336,434	5,229	Germany	.70
Cabinet wood:				
Rough	100,615	5,900	Central America	.10
Sawn, except veneers	85,085	53,240	United States	.50
Veneers:				
Common wood (not exotic)	181,150	2,800	Germany	2.50
Cabinet wood	33,250	500	France	5.00
Cork wood:				
Rough	71,270		Italy	.50
Manufactured	415,200		France and Spain	5.00
Hogsheads, etc., of soft wood	114,896	1,001	Germany	1.60
Used petroleum barrels	57,880	520	France	1.00
Manufactures of wood:				
Planed, but not finished	234,892	868	Germany	3.00
Finished, but not painted or carved, and without metal	206,580	20,900	do	6.00
Rough, but with metal	58,170	1,080	Germany and France ..	12.00
Parquetry:				
Finished	25,740		Austria	6.00
Unfinished	192,630		do	3.00
Cooper ware (including staves, finished) ..	195,650		Germany	12.00
Furniture and parts of furniture:				
Common wood—				
Rough	495,830	2,970	Germany and France ..	10.00
Bent, not upholstered	259,875	1,080	Austria	12.00
Painted, varnished, or veneered ..	248,930	2,700	Germany	16.00
Polished	647,400	1,750	do	25.00
Carved, upholstered, etc	490,250	5,500	Germany, France, and Italy	38.00
Cabinet wood (exotic)	82,880		France	50.00
Other manufactures of wood:				
Painted, polished, varnished, etc	293,975	825	Germany	30.00
Moldings, ornamented	145,670		do	30.00
Picture frames, etc., ornamented	280,686	1,872	do	40.00
Baskets, etc.—				
Rough	127,320		Germany and France ..	12.00
Fine	251,275		Germany	30.00
Brushes, etc.—				
Rough	201,000		do	25.00
Fine	199,200	1,600	Germany and France ..	50.00
Other articles	448,407			
Total	18,200,099	189,679		
Total, United States currency	\$3,502,619	\$36,608		

* 100 kilograms = 220.46 pounds.

† 1 franc = 19.3 cents.

Duties are paid on the gross weight.

Switzerland's exports of wood and manufactures thereof amount to 4,126,826 francs (\$796,477), of which amount the United States had 49,676 francs (\$9,587), mostly consisting of wood carvings.

SHIPBUILDING.

The manager of the Maschinenfabriken von Escher Wyss & Co., Zurich, a world-renowned concern for machinery of all kinds, ship-building, etc., writes:

We use teak, pitch pine, and yellow pine. The requirements for teak wood are limited, and would hardly offer inducements for direct imports, but of yellow and pitch pine we consume several carloads at a time. We are buying these goods in boards, laths, or square-cut blocks, the latter of which we cut ourselves according to requirements.

Regarding American woods, we do not purchase same on account of the low figures but for their superior qualities. Yellow and pitch pine are mostly used for ship-deck laths; some little also for cabinetmakers' work. The price of pitch pine is rather lower than that of the native larch wood; the same contains more pitch, and can be bought in long, clean blocks, but is not so fine as the former.

We are buying these woods at Genoa, Antwerp, or Hamburg. We could only make direct importations if small shipments could be forwarded at as cheap freight rates as large ones, and prices made delivered, at our railway station, subject to inspection, as we must be very particular about the quality, and it would not pay us to send some one to the United States to buy and inspect these woods before shipment.

Messrs. Treichler & Co., Zurich, boat builders, another prominent firm, write:

At our wharf we are using the following kinds of wood: Mahogany, Spanish cedar, cypress, pitch pine, yellow pine, white pine, Canadian spruce, and teak from the West Indies.

For yacht building in England, yellow pine is mostly used (planks and laths), it being lighter than pitch pine. The price of pitch or yellow pine should not exceed 200 francs per cubic meter (\$40 per 1.308 cubic yards), delivered at Zurich. The quality should be an excellent one, as, for boat building, only wood free of knots and in every way faultless can be used. In order to reduce the freight charges, the woods should be delivered in planks 6 to 10 meters long (1 meter = 39 inches), with a minimum width of 0.35 meter, and from 60 to 150 millimeters thick, or in logs or blocks of as great dimensions as possible, and ax-cut.

An excellent wood for the manufacture of small boats is known in America under the name of "white cedar," and is used there in great quantities. We take a special interest in this kind of wood, which up to date is being furnished us by Hamburg and Bremen importers.

It is getting more difficult from year to year to find selected fine woods in Switzerland; other industries besides ours (such as are compelled to use fine, clear, and durable woods) will be compelled to use more American woods. There is no market for second qualities, parcels of which have from time to time been brought over.

Messrs. Treichler & Co. are willing to undertake the sale, on commission, of yellow and pitch pine, white cedar, and Canadian spruce, if American wood exporters would make trial shipments to Switzerland, and they can at any time furnish satisfactory references.

WAGONS AND CARRIAGES.

Mr. J. C. Geissberger, Zurich, carriage manufacturer, writes:

American woods for the manufacture of carriages have for years been imported into Switzerland, but in an indirect way only, through Berlin, Hamburg, and English commission houses.

This has reference to hickory woods required in the manufacture of wheels, as hubs, spokes, and fellies. The hubs are imported either in a rough state or finished; the spokes are imported ready for use, and so are the fellies (finished, bent, and assorted in sizes to meet requirements).

For the other parts of our carriage manufactures, we also use walnut, acajou, and white wood, in boards of 10 millimeters (0.3937 inch) thickness.

As to prices, we have to pay the following figures, delivered: Hubs, in the rough, made of American rock elm (sets of four), 9.40 francs (\$1.81). Prime hickory spokes, $1\frac{1}{8}$ inches, 40 francs (\$7.72) per hundred; $1\frac{1}{2}$ inches, 42.50 francs (\$8.20) per hundred; $1\frac{3}{4}$ inches, 45 francs (\$8.69) per hundred; $1\frac{7}{8}$ inches, 47.50 francs (\$9.17) per hundred. Prime hickory fellies, bent, 38 to 50 millimeters (1.5 to 1.97 inches) thick and 90 to 95 centimeters (35.43 to 37.4 inches) high (set of four), 13 to 15 francs (\$2.51 to \$2.90); 38 to 50 millimeters thick and 110 to 140 centimeters (43.31 to 55.12 inches) high (set of four), 15.65 to 19.40 francs (\$3.02 to \$3.74). Walnut planks, 3.60 to 4.80 francs (69 to 93 cents) per square meter (10.7642 square feet); acajou planks, 6 to 10 francs (\$1.16 to \$1.93) per square meter; white wood, about 2.25 francs (43½ cents)—all delivered free on board at Zurich and duty paid.

Mr. Geissberger is ready to import direct from America, if prices and terms are made satisfactory.

WOOD MATERIALS FOR FLOURING MILLS.

Mr. A. Millot, Zurich, writes that his requirements demand almost exclusively pine and beech woods, and these he uses in considerable quantities, other kinds of woods not being used to a large extent. Pine boards cost here 55 to 60 francs (\$10.61 to \$11.58) per cubic meter, and beech boards 75 francs (\$14.48) per cubic meter.

LUMBER DEALERS.

Messrs. R. Gintzburger & Co., Romanshorn, write:

We have imported Florida pitch pine in an indirect way; we are, however, ready to make direct imports if prices are satisfactory. We can handle a shipload at any one time. The woods mostly required are red and white pine of first quality in boards of 5 to 6 inches in width by 1 inch thick; also in larger dimensions. We are also buyers of other varieties of wood.

Mr. Gottfried Baumann, Zurich, writes:

As far as I know, the consumption of American woods here is restricted to walnut, mahogany, palissander, and pitch pine. The latter has been brought in direct of late in the shape of lumber. I hardly think that American wood could be imported with profit for building purposes, because native timber, sawed with angular edges, is sold at Zurich at about 37 to 40 francs (\$7.14 to \$7.72) per cubic meter (35.316 cubic feet). Something might be done in American oak, but only in thick planks of first quality, at about 75 to 80 francs (\$14.48 to \$15.44), delivered at Zurich. Large quantities of this article are being imported from Hungary.

Special attention is called to the communication of Messrs. Gebrueder Masera, at Winterthur, a large lumber firm making direct imports of American pitch pine, etc. They write as follows:

It is our opinion that American wood exporters could largely increase their sales in Switzerland, especially if they would offer such varieties of wood as can be brought into competition with the native woods. As long as American exporters seek a market for expensive woods only, no satisfactory results are obtainable, even if the

quality is superior to that of the native woods. The wood trade of this country demands a great deal of the cheaper varieties.

The only American wood generally known here is the pitch pine, and we dare say that the increase in the imports of this wood is due to the efforts of our firm, made for years past in this direction. Unfortunately, prices are always much higher than those for similar native woods, and, for this reason, their use is limited. In some cases, pitch pine is preferred on account of its suitable dimensions, or where wood containing a great deal of pitch is required for special purposes. This wood will always find a good sale for parquet floors, but only in the better qualities, and if prices could be lowered a little the sales could be much increased. Second qualities, as have sometimes been sent here, are not wanted, and it is in the interest of American exporters to ship only first qualities if they want to increase the demand.

Other American woods can be used, provided the qualities are as good and prices not higher than that of woods most in use here.

Switzerland imports great quantities of oak boards from the most remote sections of Hungary, etc., unfinished parquetry especially. The freight charges on these shipments are just about double the freight charges from America to Switzerland, when sent in shiploads. If, therefore, the American oak wood can be used for parquet flooring, as we suppose must be the case, and the raw product can be bought as cheap in the United States as in Hungary and Russia, the American product, no doubt, will find ready sale in large quantities.

The native beech is also much used for parquetry, being as durable as oak and one-third cheaper. If America furnishes a wood similar to our beech, which is very hard, sales would be still more extensive than in oak wood.

As to dimensions and quality of oak and beech friezes, they should be as follows: Thickness, 27 millimeters (1.06 inches), with at least 1 to 2 millimeters surplus measure; length, mostly 60 centimeters (23.6 inches), or between 50 to 70 centimeters (19.7 to 27½ inches), with 3 to 5 centimeters surplus measure; width, mostly 12 centimeters (4.7 inches), or between 11 to 12 centimeters, with 3 to 5 millimeters surplus measure. The quality required is the perfectly air dried, clear of knots and spots, and of even color. The cuts must, of course, be strictly parallel. As to prices, oak friezes will command about 40 to 50 per cent more, and beech friezes 30 to 40 per cent less, than pitch-pine flooring, delivered, freight and duty paid, in Switzerland.

There is also some demand for a cheap soft wood for flooring, which must also be perfectly free of knots, at a price not to exceed the price of first-class quality of native pine, which is sold about two-fifths cheaper than pitch pine.

I would suggest that American exporters address Messrs. Gebrueder Masera, this firm being the largest of Swiss wood importers. They are ready and willing to give any information desired regarding their own requirements, or on other woods needed here as lumber, for the manufacture of tables and chairs, box lumber, staves for hogsheads, etc.

STAVES.

Statistics show that Switzerland imports annually about 600,000 francs (\$115,800) worth of rough staves and finished cooper articles. The staves most in demand are of the smaller sizes, varying from 34 to 75 centimeters (13 to 29 inches) in length. Hungary supplies most of them. These staves are split and trimmed with the ax, and not sawed; they vary in width from 4 to 11 inches.

W. Weiss, Thalacker, Zurich, is the principal stave importer in this district.

RAILROADS AND STREET PAVING.

For railroad building, wooden ties are gradually being replaced by iron ties, the latter being cheap and more durable.

Swiss cities have begun to pave their streets with wooden blocks, and, if results prove satisfactory, the use of wooden paving blocks will be increased.

HOUSE FINISHINGS.

During the two years 1893-1894 not less than 1,180 new houses have been erected in the city of Zurich alone, and although not much timber is used, stone and iron being the principal materials, a large quantity of wood is worked up for finishing purposes, as, for instance, for parquetry flooring, sashes, window frames, stairs, etc.

Parquet floors are very extensively used in this country, such being found in almost every house in Swiss cities. There are quite a number of factories in Switzerland that make parquet flooring a specialty for home as well as for export requirements.

Messrs. Haldimann, Wissler & Co., Goldbach, Canton Berne, write:

We think that in a few years some of the American woods will play an important rôle in the Swiss markets. So far the Swiss parquetry factories have been getting their supplies from Hungary, mostly, however, through Genoa, Antwerp, or Hamburg commission houses.

Pitch pine, cut in longitudinal sections (long friezes), sells in sizes of 25 to 33 millimeters thick at 90 to 95 francs per cubic meter (\$18 per 1.308 cubic yards) delivered free on board track at Swiss stations.

Some American oak is also imported from time to time. If American exporters are desirous of competing with the Hungarian oak, they must sell the Swiss parquetry factories friezes, 25 to 33 millimeters (0.98 inch to 1.3 inches) thick and 30 centimeters to 2 meters (11.8 to 78.4 inches) and more in length, at a price not to exceed 100 to 155 francs (\$19.30 to \$29.91) per cubic meter, according to quality and dimensions, delivered and duty paid.

Other American woods, such as mahogany, hickory, walnut, etc., are imported for the manufacture of furniture.

Mr. Ferdinand Haldimann is the president of the Swiss Association of Parquetry Manufacturers, and this gentleman is willing to give interested parties all the necessary information, with a view to enter into direct trade relations, especially in the line of oak friezes, samples of which he solicits.

CABINET WOOD FOR FURNITURE FACTORIES.

Messrs. Wolff & Aschbacher, furniture makers of Zurich, write:

American woods mostly imported into Switzerland are walnut, oak, palissander, mahogany, rosewood, etc., all being delivered in the shape of logs, lumber, or planks with angular edges.

We are aware that there are still a number of other American woods fit for the manufacture of furniture, and up to the present time not imported, but are said to be rather cheap—that is to say, they are sold at about the same prices which we have to pay here for our native woods, namely, 130 to 220 francs (\$25.09 to \$42.40).

It would be well for exporters to send samples of furniture panels with crossettes, the panels to be about 15 centimeters in width to 20 centimeters in length (5.9 to 7.9 inches). This would give us an idea whether they would answer our purposes. We do not import direct, our requirements in American woods being small, but we purchase, as needed, from importers.

Another firm says that unfinished furniture, as frames, etc., in the rough might be imported to advantage, and asks for catalogues of such material.

Regarding household and office furniture of American make, the transportation expenses and customs duties are against us, yet something might be done in the line of fine furniture, which, as a rule, was for years imported to this district from Paris, but owing to the prohibitory tariff now being imposed on goods of French origin, the imports of such articles are restricted, and I am confident that business could be worked up with the American article.

From some of these communications it may be readily seen that more American woods are imported into this country than appears from the statistics, the bulk being bought from German or English importers; but if American exporters would make an effort to establish direct relations with dealers and large consumers here they would not only save commissions, but no doubt largely increase sales.

It would be well to mention to American exporters that goods sent to Switzerland must be accompanied by a certificate of origin, and that the customs duties, which are specific, are collected invariably on the gross weight.

EUGENE GERMAIN, *Consul.*

ZURICH, *January 11, 1895.*

SUPPLEMENTARY REPORT.

While gathering the necessary information on American woods in Switzerland I entered into correspondence with several Swiss firms working up American and other woods, and incorporated a synopsis of answers received in my report. To day I am in receipt of a communication from the Swiss furniture firm of Meyer-Mueller & Co., Winterthur and Zurich, which reached me after my report had gone forward.

This firm being a prominent concern, I give a translation of their letter:

Answering yours of January 5, we beg to inform you that, up to date, to our knowledge, no ready-made American furniture has been introduced into Switzerland, but we are of opinion that unfinished American furniture in the rough (in pieces) could be introduced to advantage.

We have seen several Swiss furniture manufacturers who visited the World's Fair at Chicago, and from these we learn that American furniture manufacturers sell unfinished furniture and ship it knocked down. We think such furniture would find a ready market in this country, and could be finished in Switzerland to suit the tastes, as to color and finish, of the Swiss people.

We would therefore thank you to put us in communication with one or two first-class American furniture factories, with a view of making arrangements to try the venture and get a trial shipment.

The kind we manufacture are parlor, sitting-room and bedroom, and office furniture. As to our responsibility, we refer you to the Zuercher Bankverein, Zuerich, and the bank in Winterthur.

EUGENE GERMAIN, *Consul*.

ZURICH, *February 1, 1895.*

AMERICAN LUMBER IN URUGUAY.

The lumber trade of the United States with Uruguay and the Argentine Republic presents incongruities which can not but be harmful to the lumber interests of our country. To prove the truth of this it is necessary only to show the difference between the prices received by the lumber mill and the price the consumer has to pay for it here and to explain the reasons of the extraordinary difference.

The best means of demonstrating the above will be by giving an exhibit of a cargo sold here, with such explanations as will enable anyone interested in the matter to form an opinion for himself. Before proceeding further it is well to state the range of prices at which pitch or yellow pine lumber has been offered and the figures at which this lumber is generally sold to the consumer. The lowest offers known to me as made from the United States to the importers here is \$19 per 1,000 feet delivered in the port of Montevideo or Buenos Ayres, and the average price paid for pitch pine by the consumer is from \$40 to \$50 per 1,000 feet.

These Governments levy a duty for the privilege of allowing this lumber to be landed here almost equal to the amounts which the miller realizes for the original value of the raw material plus all the work and expenses of preparing it and getting it ready for shipment; this, too, in the face of the fact that this country produces no timber which could take the place of our pine; that it must be purchased from us, because it is needed and is the cheapest in the market in spite of all the additional charges put on, thereby furnishing these Governments a source of revenue on an article the export of which destroys our pine forests uselessly and leaves the lumber manufacturer poor.

The following exhibit is of an account of sale for a cargo of pitch (yellow) pine lumber sold and shipped direct by the mill with intervention of their representative here:

Account of sale of a cargo of pitch pine per bark ———, for ———, Montevideo.

	Feet.
According to M. M.'s invoice	564, 149
According to measurement of public measurer here, as per contract.....	564, 116
Less reduction for sap, short measure in some dimensions, and on deck load	34, 988
Net	529, 128

529,128 feet, at \$25 per 1,000 feet.....	\$13, 228. 30
Freight, at \$12 per 1,000 feet, according to charter party.....	6, 129. 70
Total	7, 098. 60
Discount at 8 per cent on \$6,000 paid in cash by buyer on account of freight, six months.....	\$240. 00
Measurer's bill, 25 cents per 1,000 feet	141. 02
Discount on note of buyer, at six months, at 7 per cent per annum, and other expenses, stamps, telegrams, etc	463. 49
	844. 51
Net total	6, 254. 09

This amount was paid over in cash by telegraphic transfer in New York the same day of settlement here, with deduction of \$10.45 for cable expenses to bank.

The lumber trade here has so far been practically divided into two distinct branches, one being the importer, the other the dealer. The importer buys and contracts probably in conjunction with his New York commission merchant when and wherever the opportunity is most favorable, using capital to the best advantage in the markets at home, picking up bargains whenever lumber manufacturers are forced to make sacrifices, etc., and selling in cargo lots afloat, at time of shipment, to the lumber dealers here, who keep a regular stock on hand for distribution to the consumer.

It will be easily understood that the importers are very few in number in any one of these countries, and that it is to their benefit to keep the dealer as much as possible in the dark regarding the import lumber trade, and thus subject to themselves. With this object in view, a lot of customs and practices were inaugurated, which made it almost a matter of impossibility for an outside manufacturer or dealer in lumber to sell direct to the dealer here on account of the numberless vexations he was subjected to. Unless he knew and avoided these obstacles, or had some one here who could do this for him, he would come out loser at the end.

These practices apparently favor the actual dealer, but, in fact, the importer has been the one benefited, because they gave him entire control of the importing business and proved to be his safeguard against outside intrusion.

The methods of sales to dealers here are about the following: The lumber is sold and delivered on six months' credit from the time it has been officially accepted by the dealer, according to the various other customs hereinafter mentioned, viz:

1. The dealer is expected to be notified by wire immediately when the ship bringing the cargo he bought from the importer (or seller) is ready to sail, so as to give him time to dispose of all he can to his customers during the time of the voyage, a matter of not less than sixty days.

2. All lumber sold is supposed to be dry, clear of any sap, splits, knots, and other faults—in other words, according to the custom here,

it is supposed to be faultless. If any faults are found in any plank, beam, etc., the proportion thereof is assessed against the seller by the public inspector appointed for such cargo.

3. All lumber, before it is accepted by the dealer, has to undergo an inspection and measurement by a public inspector, who is jointly chosen by seller and buyer, or each one has the right to name one separately. These inspectors measure the cargo and assess the percentage of reduction to be claimed, according to the lumber standard of this port, from the seller. According to this standard, no cargo can be brought here without some claim against it, the lowest amounting to about 4 per cent; but if it goes over 10 per cent, the buyer has the privilege of rejecting the entire cargo. Such inspection is paid for half each by the buyer and the seller, and amounts to 50 cents per 1,000 feet.

4. As all the lumber is sold delivered here, the freight, of course, has to be paid by the seller, which means a cash outlay of sometimes more than the manufacturer gets for his lumber. The rate of freight runs on an average from \$10 to \$14 per 1,000 feet, \$12 being a fair average. Of course, arrangements can generally be made with the buyer to pay the freight on delivery of the cargo, but in any such case he will claim the percentage (discount) for the advance so made of said freight, and it goes toward reducing the actual price at which the lumber is nominally sold. It is the same with six months' time notes which the seller receives from the buyer in payment of the purchase. These notes can be discounted so long as the buyer is considered good, but this further reduces the actual price supposed to have been realized for the lumber.

Next comes the Government with its duty, which amounts to \$8.25 per 1,000 feet on pitch or yellow pine and about \$15 on white pine, and is calculated as follows: On a valuation fixed by the Government on pitch pine of \$30 per 1,000 feet for import purposes, no matter whether it has cost in reality perhaps only half of that, a duty of 20 per cent is charged, and, besides, about \$2.25 per 1,000 feet additional custom-house charges.

It will be seen that the freight and duty alone on pitch pine generally amount to \$20 and more; consequently, the dealer here, in selling to the consumer at from \$40 to \$50 per 1,000 feet, has a margin of from \$20 to \$30 to be divided between the lumber manufacturer, the importer, and himself.

The manufacturer, in consideration of furnishing the actual material, being under the heavy expense of manufacturing, making all the advances until the article is marketable, and, finally, running the risk of losses of all kinds, has to content himself with about one-third of this division, and is satisfied if the New York commission merchant offers him at home this much. The importer, together with his commission merchant, running hardly any risk, satisfies himself for the outlay of his money for the time being with about one-sixth of this and grows independently rich on it, leaving to the actual dealer here the balance of

three-sixths, with which the latter party is able to make himself quite comfortable.

That the importer, the dealer, the freighter, and the Government here are doing well on a business of this kind, goes without saying, but our manufacturer at home, having commenced business as a young man on a piece of timber land, and having worked hard all his life, finds himself when he has grown old, poor and without any resources, as the land from which the timber has disappeared without benefit to him is valueless without it.

What steps should be taken to remedy these hardships falling upon the producer in this branch of industry, are for him to decide; but it would seem that a direct connection between the manufacturer and the actual dealer were preferable to the way this business has been done so far; or, still better, if the parties interested in the lumber-milling business would join together and establish rules of their own in order to protect themselves, and at the same time guard against the useless destruction of the timber wealth of our country without compensating benefit.

EDGAR SCHRAMM, *Consul*.

MONTEVIDEO, *April 30, 1896.*

ASPEN WOOD FOR MATCHES.

The manufacture of matches in Germany, which has risen to be an industry of importance, employs pine, poplar, aspen, linden, and birch woods. Of these woods, aspen has proved itself indispensable in the manufacture of matches by reason of its natural qualities and the ease with which it can be worked up. It is distinguished by its large structure, ready combustibility, freedom from knots, and uniformity of substance.

The flame of a match, as is well known, is conveyed to the wood from the igniting composition by sulphur, as in the case of lucifers, into which the splints are dipped. In the case of Swedish matches the sulphur is substituted by paraffin. The sulphur, where this is used, remains on the outside of the wood and dries at once. The paraffin, however, must penetrate into the wood, partly because the matches would otherwise stick to each other, but principally because the paraffin becomes fluid again at even low degrees of heat and would penetrate the igniting composition and render it useless. For safety matches, therefore, a wood is required which has light and spongy pores, as found only in the aspen, whose bright white color further gives it an agreeable appearance. Poplar has a gray color and is brittle; birch wood becomes yellow and is seldom obtainable in stout logs. These woods are also slow of combustion. Pine and fir woods take up little paraffin, owing to the resin they contain.

In order to keep the pores as open as possible, and also to work up the wood to the greatest advantage, the aspen splint is produced by flaking. Aspen possesses the quality of being flakable to a very high degree. The flaking is done by causing a knife to revolve round a log which rotates on its own axis. The wood is divided into ribbons of the thickness and width of a match. These ribbons are laid evenly, one above the other, and cut into square splints. In consequence of the uniformity of the annual layers, aspen wood produces perfectly homogeneous ribbons or splints. This is not the case when other kinds of wood, like fir, etc., are flaked. The absence of all structure or grain further enables aspen wood to be flaked into thin shavings, which are worked by other machines into the familiar match boxes. Just this fact that both match splints and box shavings can be produced by one machine from one material calls for the employment of aspen wood. Attempts have been made to flake fir and pine woods as substitutes for aspen, but it is not known that any results of importance have been obtained. The reason why the last-mentioned woods can not be flaked is, probably, because of the difference in the annual rings between the spring and fall wood—that is, between the inside of the ring and its extreme outside the difference is too great. The fall wood is too solid, the spring wood too soft, and the annual rings are of varying thicknesses, according to the location of the tree, while, even in the case of pine, the knife is apt to slip and cut ribbons of unequal thickness. In the case of aspen wood each ribbon is like the other, a circumstance which is of the utmost importance for the further processes.

Match manufacturers require that the aspen wood should be free from rotten pith and, as far as possible, free from knots—free from pith, otherwise the wood can not be fixed in the flaking machine; free from knots, because the wood round the knots is decayed. The wood should further be straight grown and of loose texture. The aspen is available for match making as soon as the trunk has a diameter of 8 inches. The demand is greatest for trunks with a diameter of 10 to 20 inches. To attain this size a period of twenty-five to sixty years is necessary, according to the nature of the soil, position, etc. Trunks from twenty to thirty-five years old are preferred to younger growths for the reason that the method of manufacture produces the same amount of waste, whether the trunks be small or large.

The match factories which employ aspen wood are mostly situated in Silesia, Pomerania, Schleswig-Holstein, Bavaria, Rhine Province, Alsace-Lorraine, Rhine Palatinate, and the Duchy of Anhalt. These factories use on the whole 4,000,000 to 5,500,000 cubic feet of aspen wood annually, of which about 3,500,000 cubic feet are imported from Russia.

The Silesian factories, mostly through dealers, procure their wood from Upper Silesia, Poland, Galicia, and Hungary. To procure wood from the districts of Königsberg and Gumbinnen is unprofitable,

because the freight is considerably higher than from Cracow or the Tatra. Regular direct purchases in Upper Silesia are not possible, for the reason that there are no large compact stocks of trees, and the various individual forests only produce a few carloads each, which are too dear when account is taken of the personal attendance requisite to purchase. The cubic meter (35.316 cubic feet) of aspen wood, delivered free at railway station, costs from 17 to 26 marks (\$4.05 to \$6.19), according to quality—aspens of 25 to 50 centimeters diameter, 26 marks (\$6.19); of smaller diameter, 20, 21, and 24 marks (\$4.76, \$5, and \$5.71). The wood from Poland, Galicia, and Hungary is not essentially dearer than the wood from Upper Silesia. Where grown it costs 10 to 14 marks (\$2.38 to \$3.33), and, although the customs duty has to be added to this, the higher price is compensated for by the superior quality of the wood. The freight rates are various. Ten thousand kilograms (22,146 pounds) contain about 12 to 14 cubic meters (424 to 615 cubic feet), the freight for which from Upper Silesia would be about 50 to 60 marks (\$11.90 to \$14.28), and from Poland and Galicia, about 120 marks (\$28.56).

For the factories in Pomerania the principal sources of supply are Riga, Kovno, Libau, Windau, and St. Petersburg, where dealers do a lively trade. The wood is felled in the forests, brought down to the sea, and shipped when water communication is open. It is sold in the form of logs from 3 to 7 meters (16.4 to 23 feet) in length, with both ends cut smooth. The ports through which aspen wood is imported are Königsberg, Danzig, Kolberg, Rügenwalde, Flensburg, Lübeck, Amsterdam, Antwerp, Stettin, and Bremen. The prices for Russian wood vary according as the wood comes rafted or unrafted to the market. Unrafted wood costs delivered in Bremen, including the customs duty of 1.20 marks, 25 marks (\$5.95); rafted wood, 21 marks (\$5). Such prices, however, are only good for contracts for the whole year; in other cases they are about 10 per cent higher. The freight rates by direct steamer from Riga are 16 to 18 pfennigs (3.8 to 4.3 cents) per cubic foot, and from Kovno, via Lappinen-Königsberg, by lighter, about 10 pfennigs (2.4 cents) per cubic foot delivered in Danzig. The prices are advancing from year to year.

The factories in Anhalt use native wood partly, from the neighboring forests, and partly Russian wood, via Stettin. The price is 28 to 30 marks (\$6.66 to \$7.14).

For Westphalia the wood is shipped in steamers from Riga to Amsterdam and thence by rail. The cubic foot delivered in Amsterdam costs from 71 to 86 pfennigs (17 to 20½ cents), according to quality.

In Alsace-Lorraine the wood is taken from native forests, but it is no longer very thick and can not be flaked, but must be planed. The stocks have been freely felled in the last ten or fifteen years, and no care has been taken to replace them. In consequence of the enormous expense the wood of East Prussia is out of the question for the Alsa-

tian factories, which are, therefore, in a very difficult position. Prices here have risen 10 to 15 per cent in late years and are still rising.

The factories in Schleswig-Holstein procure Russian wood via Libau and Königsberg. The freight rates from the former city are 5 marks (\$1.19) and from the latter 6 marks (\$1.43) per cubic meter (35.316 cubic feet). The price for wood, duty paid, is 20 to 21 marks (\$5.76 to \$6) per cubic meter.

In the Rhine Palatinate Russian wood is partly used, which costs 34 marks (\$8.09) per cubic meter, duty paid and delivered free.

The factories in the Hunsrück use aspen wood from the forests in Nassau, Bavaria, and the Eifel. Russian wood is too expensive. The wood is procured in logs of 2 meters (6.5 feet) in length.

In Bavaria, where the wood is also becoming scarce, native wood from Upper and Lower Bavaria is used. The wood is furnished sawed in lengths of 2 meters (6.5 feet), as logs of such lengths enjoy lower freight rates.

The rapid decrease of the native stocks of the aspen, and the subsequent enhancement of the prices of this raw material, together with the difficulty of obtaining it, led a number of chambers of commerce to memorialize the Minister of Agriculture and Forestry and petition him to cause the foresters in whose districts match factories are located to pay more attention to the growth of the aspen. A similar representation has been made by parties concerned to the French authorities. The Russian manufacturers seeing their advantage over their German and French colleagues, were not slow in petitioning their own Government to prohibit the exportation of aspen wood.

This European scramble for aspen wood can well be settled by supplying these factories with wood from the United States, where the aspen is yet an ubiquitous tree, used but little for mechanical purposes.

IMPORTS AND EXPORTS OF MATCHES.

In connection with the above, the following tables, showing the value of matches imported into and exported from Germany in 1893, will be of interest:

Imports.

Sweden	\$30, 762
Austria-Hungary	6, 010
Belgium	2, 678
Italy	2, 676
Total	42, 126

Exports.

To—	Value.	To—	Value.
Europe, Asia, and Africa:		America:	
Netherlands	\$65,688	Central American republics	\$21,268
Belgium	60,014	Brazil	11,186
Greece	23,800	Haiti	9,282
Dutch East Indies	22,134	United States	2,618
Switzerland	14,756	Chile	1,666
British East India	11,900	Venezuela	1,190
West Africa	10,710	Argentine Republic	952
Great Britain	10,472	Colombia	952
Austria-Hungary	9,282	Ecuador	714
Italy	8,568	Uruguay	476
Turkey	1,190	West Indies	238
Total	238,514	Total	50,542
Other countries	4,874	Grand total	293,930

THEODORE M. STEPHAN,
Consul.

ANNABERG, *March 22, 1895.*

AUSTRALIAN WOODS FOR STREET-PAVING.

At the present time, when this country is recovering from the recent financial cyclone, and when the business outlook is daily growing more promising, it is not inappropriate to consider by what means the commerce between the United States and the Australian colonies can be increased to mutual advantage.

It has occurred to me that a large and profitable business can be done between the two countries by the shipping to the United States of wood blocks for street-paving. The advantages to be derived are manifold.

Wood pavements are admittedly the best in the world, and of late years they have only been abandoned in the United States owing to the fact that no wood of native growth could be found that would stand the wear and tear of the heavy traffic in our large cities.

In this country one is compelled to notice and give the palm to the street pavements made from blocks of red and blue gum, a wood grown in this country, which have proved to be equal to all requirements.

I have noticed, in this city and in Sydney, where strips of the wooden pavements have been joined to a stone pavement and where both have been subjected to the heaviest wear, that the wooden pavement has worn even better than the stone, and, where the two pavements join, the edges of the wood blocks are not even chipped or worn.

It is a pity that our country, which is so far ahead of other lands in many respects, should be so far behind in this matter of street-paving.

Can we not adopt the Australian wood blocks to advantage? If a fair trial could be given by some of our cities, I am sure that it would result in the adoption of Australian timber for street-paving in the United States and thus open up a new industry between the two countries.

Perhaps the very best timber obtainable for this purpose is the Tasmanian blue gum. This has worn here for six or eight years. In all that time no repairs have had to be made, and the pavements are as good to-day as when laid.

The Tasmanian government is interested in the matter, and have taken active steps to place samples before our contractors and municipal authorities.

An American exporting and importing firm doing business here, with a branch in New York City, recently visited Hobart, the capital of Tasmania, and laid the matter before the premier. They were most courteously received, and at their suggestion the premier caused to be shipped to them in New York samples of these blocks, which can now be seen at the office of Messrs. Trowbridge & Terry, 531 Broadway.

While these hard woods are plentiful here, it must be remembered that the cost of freight, etc., would bring them to New York at a price probably no lower than cedar blocks can be obtained at home; but consideration must be given to their durability and vast superiority.

It is not unlikely that in view of opening up this trade with the colonies and at the same time benefiting our own land, arrangements might be made to admit these blocks free of duty.

The demand at home will be endless and the supply here inexhaustible, and the benefits resulting from the adoption of these blocks apparent. For instance, all sailing vessels coming to this port from the United States are, in nearly all cases, obliged to go to other ports seeking return cargoes. Should the wood blocks be accepted and used in the United States, these vessels could all get return freights here, and thus the trade between the two countries would be profitably increased.

DANIEL W. MARATTA,
Consul-General.

MELBOURNE, *January 12, 1894.*

A VALUABLE TREE IN NEW CALEDONIA.

From time to time I have received requests from citizens of divers Southern States for seed of the niaouli tree of New Caledonia. This tree (*Melaleuca leucodendron*) is the characteristic wood of this country. It blooms in January and June. Its wood is of a reddish color and hard. It works well, more especially for wheelwright purposes. It has a suberous or cork-like bark, and replaces cork in some of its usages. The leaves are employed for medical purposes; when distilled, they give an essence which is a powerful antiseptic. It is generally admitted that the exceptional salubrity of New Caledonia is due to the essence of this wood. The vicinity of swamps is not dangerous to health here. It is probable that the above facts are known to some

residents of the United States, hence the requests for seed which have reached me. I send a small parcel of the niaouli seed to the Department of Agriculture through the United States dispatch agent at San Francisco. The seed is still mostly attached to the boughs in its pods. These should be bruised before planting. Each pod contains a large quantity of seed, which are very small and shaped like a comma. They should be sown in the spring in hotbeds of light earth, well watered at all seasons, and always kept from frost. The young plants are ready for transportation in fifteen months after sowing, when no more care is necessary in climates not subject to frost.

L. LE MESCAM,
Commercial Agent.

NOUMEA, *May 14, 1894.*

LUMBER IN COSTA RICA.

The native woods principally utilized as lumber consist of two or three varieties of cedar, as well as several cheaper and less durable woods unknown in northern countries.

Of imported lumber, pine is the only kind used in any quantity, with some oak brought for use of the railroad in its repair shops. The principal objection to pine and other foreign lumber is that in a very few years it is attacked by insects, which eat through the stoutest pieces and completely destroy them.

The value of lumber imported from the United States during the year 1893 was \$3,816 in American gold.

There is an import duty of, say, $2\frac{1}{2}$ cents in American currency per kilometer (2,2046 pounds) on lumber such as boards, rafters, and for construction purposes generally.

According to a Government decree dated July 28, 1890, all lumber for construction imported for use in Port Limon is free of duty till July 29, 1895.

Cedar is worth about \$6 and mahogany about \$8 (American money) per ton of 40 cubic feet.

In view of the small demand for foreign lumber and the condition of general building at the present time, there is very little to be suggested in the way of extending trade. Sawmills are being erected in different parts of the country, and native woods are well adapted for most local building purposes.

HARRISON R. WILLIAMS,
Consul.

SAN JOSÉ, *July 2, 1894.*

LUMBER IN QUEBEC.

Consul Philip B. Spence, of Quebec, under date of January 8, transmits a circular prepared by J. Bell Forsyth & Co., showing the supply, export, and stock of timber and deals at that port in 1894, from which the following extracts are given. The figures cover up to December 1.

Description.	Supply.	Export.	Stock.
	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>
White Pine:			
Square	838, 246	} 3, 468, 600	1, 656, 993
Waney	2, 288, 663		1, 610, 571
Red pine	59, 835	146, 120	282, 084
Oak	1, 276, 869	937, 840	699, 205
Elm	528, 761	128, 880	244, 145
Ash	183, 626	134, 929	99, 659
Birch	131, 191	189, 920	13, 242
Pine deals	647, 408	479, 700	63, 624
Spruce deals	3, 447, 856	3, 462, 800	579, 774
Total	9, 402, 455	8, 948, 789	5, 249, 297

The circular says:

We note with regret a continued decrease in the business of the port. The growing scarcity of some descriptions of timber and the advanced cost of others have reduced the supply on the one hand and limited the export by diminishing the consumption on the other.

The concession of the use of steam in taking on board timber, obtained by the shipping merchants from the ship laborers, in connection with steamers, has resulted in the transfer of an increased proportion of the export carrying trade from sail to steam, and has to some considerable extent checked the tendency to send timber from Montreal by steamer in preference to shipping from Quebec.

The market this season for South American lumber has been fairly active, both direct from the Province of Quebec and via Portland, Boston, and other North American ports. From the ports of the maritime provinces the spruce trade to the Argentine Republic has been unusually active, and from Montreal heavy shipments of pine to same destination were made near close of season. Prices range as follows: Spruce, \$11 to \$13.50 per 1,000 feet, B. M., according to specification; pine, \$17.50 per 1,000 feet, B. M., for common to \$50 for clear.

Owing to the depression in the United States, the lumber market there has not been as good as expected, still all good lots of spruce suitable for that market have realized about the same price as in 1893, and manufacturers expect an increase of at least \$1 per M. for the 1895 cut.

Freights opened at about 16s. Clyde and 18s. Liverpool for sail from Quebec, and at 40s. for deals by steam from Montreal. Timber rates remained without any change till advanced insurance toward end of season prevented timber shipments except by steam, for which the rates ruled from 62s. to 70s. per Petersburg standard intake, according to port of discharge. Steam freights from Montreal were greatly depressed during the greater part of the season, and for some time rates previously unheard of, such as 30s. for Glasgow, Avonmouth, and Liverpool, with 35s. for London, were current, closing at some advance, especially for Liverpool.

PHILIP B. SPENCE, *Consul.*

QUEBEC, *January 8, 1895.*

LUMBER TRADE OF THE STRAITS SETTLEMENTS.

In the dense jungles that still cover a vast portion of the Malay Peninsula and the adjacent islands there exist many rare and valuable forest trees indigenous and peculiar to this region. Of these I shall proceed to enumerate and briefly describe the nine best known lumber-yielding varieties.

Seriah (hopea).—This is a tall, handsome tree, with wood of a light red color, resembling coarse cedar in grain, much used in house building for joinery work, but not suitable for beams and joists.

Mercanti.—An inferior variety of the preceding.

Jelulong (dyera costulate).—This is a large tree, with soft, white wood, used for models, cases, and work where strength and durability are not essential.

Darrou (sideroxylon sundaicum).—A heavy, close-grained wood, resinous and aromatic, which, though well adapted to carpenters' work, does not resist exposure to the weather sufficiently well to admit of being used to advantage in external constructions.

Balan (not scientifically determined).—A fine, large forest tree, 60 to 100 feet in height and 3 to 6 feet in diameter, with hard, heavy, close-grained, tenacious wood of a light brown color, much used for joists and beams and for all purposes where strength and durability are required.

Tampinis (sloetia sideroxylon).—A close-grained wood of rich brown color, susceptible of a high polish, and closely resembling mahogany; most highly prized for joinery and building purposes on account both of its great durability and of the fact that it is not affected, as are other woods, by the ravages of the white ant, so destructive to timber in these latitudes.

Karangie (dialum indicum).—A tall, handsome tree, often found growing to a height of 60 feet, with a diameter of 4 feet. Its wood is hard, dark colored, durable, and often finely grained. It is used for furniture, and, to a certain extent, for building purposes.

Damarlant (canarium species).—One of the great Malayan forest trees, especially plentiful in the neighborhood of Penang, where it is much used for house building. Its wood is light colored, close grained, and lustrous, and is admirably suited for beams and joists on account of its great transverse strength and stiffness.

Mirabou (afzelia palembanica).—A large, majestic, leguminous forest tree, with tough, stiff, durable, beautifully grained wood, susceptible of fine polish, and well adapted to furniture making.

The kinds most extensively handled as lumber in this market and the prices per ton of 50 cubic feet are the following:

Seriah.....	* \$14 to \$25
Mirabou	30 to 45
Jelulong	15 to 20
Darrou	20 to 25
Balan	25 to 35

In addition to the above, there is considerable teak wood imported here, mainly from Burmah and Siam, which commands on the spot from \$40 to \$65 (Mexican) per ton.

The value (in Mexican dollars) of the exports and imports of the Straits Settlements of planks and timber during the year 1893 was as follows:

EXPORTS.

Kind.	Singapore.	Penang.	Malacca.	Total.
Planks.....	\$492,788	\$99,094	\$425	\$592,307
Timber	382,450	35,245	.....	417,695
Total	875,238	134,339	425	1,010,002

IMPORTS.

Kind.	Singapore.	Penang.	Malacca.	Total.
Planks.....	\$181,108	\$48,468	\$8,542	\$238,118
Timber	141,337	47,499	6,672	195,508
Total	322,445	95,967	15,214	433,626

From the above tables it will be seen that the lumber exports of the whole of this colony exceeded the imports by \$576,376 (Mexican). The imports of lumber here are mainly from Burmah, Siam, and Dutch India; the exports to Arabia, Bombay, the Malabar coast, Hongkong, China ports, French Indo-China, German New Guinea, Mauritius, Siam, Sumatra, and North Borneo. There is no import duty imposed upon lumber of any description in this colony.

The climate of the Straits Settlements is moist and tropical, with an annual rainfall of from 88.48 inches to 126.29 inches, an average mean temperature of between 80.5° F. and 82.1° F., and no perceptible change of seasons throughout the year.

At present there is but little being done here in the way of general building, and shipbuilding is confined to the construction of launches and native junks and to the repairing of steam and sailing vessels.

In the Straits Settlements proper there are no railways. Those constructed, or in course of construction in the Native Protected States of the Malay Peninsula, are as follows:

State of Perak.—A railway from Port Weld to Taiping (8 miles) was opened in 1885; an extension to Kanumberg, opened in 1890; to Ulu

* These prices are quoted in Mexican dollars.

La'petang in 1892, and a survey is now completed as far as Kuala Selama. The Kintu Valley Railway has been begun, and is expected to be completed by the end of 1894. This road will extend from the port of Telok Anson to Ipoh, a distance of 50 miles.

State of Salangor.—A railway from Klang to Kula Lumpor, a distance of 22 miles, opened in 1886, is one of the most remunerative roads in existence. It pays 17 per cent on the original capital, with a working expenditure of 46 per cent of the gross receipts. An extension to Rawang, Serendah, and Kuala Kubu, a total distance of 38 miles, is under construction.

State of Sungeillgoing.—A railway $24\frac{1}{2}$ miles in length, from Port Dickson to Seremban, was opened in 1891.

Considering the vast sources of supply which it has so much nearer at hand, I do not see that there is any opening in this market for the extension of trade in American lumber. I believe, however, that our sawmilling machinery might be introduced here to advantage.

E. SPENCER PRATT,

Consul-General.

SINGAPORE, *July 2, 1894.*

LUMBER IN WESTERN INDIA.

NATIVE WOODS.

The principal native woods are teak, rosewood, and walnut. Rosewood, or blackwood, is largely used for yokes, cart-wheels, plows, knee timbers for boats, handles for knives, etc. It is also used for cabinet-making. In its wild state the tree attains a height of 60 to 80 feet, with a girth ranging up to 20 feet. It is fine-grained, strong, and heavy; weight per square foot, 50 to 54 pounds.

East Indian walnut generally grows very fast, attains a height of 50 to 65 feet, and a girth of 6 to 10 feet; weight of wood per cubic foot, 40 to 60 pounds. It is used for picture frames, sugar-cane crushers, oil mills, etc.

Teak is one of the most valuable woods used in India; it does not warp, and the white ants, which are most destructive insects in India, do not touch it. The wood lasts many years, and changes in appearance as it grows old. In an old Hindoo cave, about 90 miles from Bombay, there is a ceiling lined with teakwood which is said to have been in position twelve hundred years. Teakwood is mostly used for shipbuilding, construction of houses, and cabinetmaking. It is the best lumber to be found for making furniture.

GENERAL BUILDING.

In the Presidency of Bombay there were $154\frac{1}{4}$ miles of railway under construction in the official year 1892-93, and $1,256\frac{3}{4}$ miles surveyed and

under survey. All the railroad companies have their own car shops and build their own cars. Iron sleepers are largely used in place of wood. Locomotives are imported from England.

There is no shipbuilding of any consequence; only small steam and sailing craft of not over 200 tons burden are built.

Buildings (with but few exceptions) are of stone, and the majority of the large public buildings, and many business and private houses, show fine architectural skill. As a rule, they are large and airy.

CLIMATE.

The climate here is tropical. The seasons are divided as follows: December to March (121 days) is the cold season; April and May (61 days) are hot and dry; June to September (122 days) is the rainy season, and October and November (61 days) are hot and damp. The temperature ranges from 70° F. to 98° F., rarely above 92° F. Humidity ranges from 69 per cent in the cold season to 88 per cent in the rainy season. During June, July, August, and September (the rainy season), which is called the "monsoon" period, clothing, leather, and ironwork are damaged or destroyed by the action of the elements, unless the greatest care is taken.

PRICES OF LUMBER.

Blackwood or rosewood per ton, at Cochin, \$15 to \$22; other ports, \$6 to \$12. Cut in the forest, prices are from \$3 to \$15 per ton. The rate of transport to coast (floating in streams) is nil.

Teakwood per cubic ton: Burma teak cut lumber, 1 by 1 inch by 3 feet and upward, \$16; 2 by 6 inches by 3 feet and upward, \$22; beams, \$17.50 to \$28; logs (per 10 hundredweight) \$2.50; Singapore teak, beams, and planks, \$18.

Norwegian deal boards, 6 by $\frac{3}{4}$ inches by 12 to 24 feet, \$21 per cubic ton; Hull deal boards, 6 by 1 inches by 12 to 24 feet, \$21 per cubic ton; American deal boards, 6 by 1 inches by 12 to 24 feet, \$21 per cubic ton.

CUSTOMS DUTY.

The duty on timber from foreign countries is 5 per cent, to which must be added a city (Bombay) custom duty of $2\frac{1}{2}$ per cent.

IMPORTS AND EXPORTS.

The imports and exports of teak into and from Bombay during the fiscal year ending March 31, 1892-93 were as follows: Imports, 70,914 cubic tons, valued at \$807,918.98; exports, 8,490 tons, valued at \$144,487.50.

Imports and exports of all other timber, in 1892-93 were: Imports, 7,846 cubic tons, valued at \$55,583.23; exports, 1,553 cubic tons, valued at \$13,633.62.

H. J. SOMMER, Jr., *Consul.*

BOMBAY, *June 22, 1894.*

TIMBER INDUSTRY OF THE ARGENTINE REPUBLIC.

In my former reports I have made frequent reference to the wonderful timber resources of the Argentine Republic. They consist entirely of hard woods, susceptible of the finest polish, and specially adapted to cabinet and other fine work. For years they have found a considerable market in Europe, though the expense of developing them—as they are found only in the far interior provinces and in the Chaco regions of the Paraná and Paraguay rivers—prevents them from coming into more general use. In the last few years, also, there has been much inquiry for red quebracho chips and extract, for tanning purposes, and it is believed that a large business could be done by enterprising capitalists in meeting this demand. The timber industry, however, during the past year has shown no increase in activity, though shipments to Europe have been quite steady, while the home consumption of these magnificent woods by the wood manufacturers now located here is beginning to assume considerable importance. In the following table I give the value of annual exports of Argentine hard woods from 1875 to 1895:

Year.	Value.	Year.	Value.
1875.....	\$21,171	1886.....	\$326,623
1876.....	10,541	1887.....	330,214
1877.....	57,090	1888.....	781,793
1878.....	14,943	1889.....	799,257
1879.....	58,793	1890.....	1,413,224
1880.....	36,403	1891.....	2,145,510
1881.....	272,613	1892.....	1,066,819
1882.....	222,358	1893.....	1,618,220
1883.....	257,887	1894.....	1,511,145
1884.....	394,848	1895 (9 months).....	1,603,203
1885.....	339,022		

The exports of the extract of "quebracho Colorado" for the first nine months of 1895—the first time its export has appeared in the custom-house returns—amount to the sum of \$238,042. The exports of red quebracho chips or chunks (rollizos) in 1893 amounted to 63,297 tons, valued at \$632,970; in 1894, 74,358 tons, valued at \$743,582; for the first nine months of 1895, 127,330 tons, valued at \$1,273,298, thus showing the increasing demand for this timber for tanning purposes. Nearly all these shipments were destined for Great Britain.

Besides this foreign demand for the red quebracho, the demand for it at home continues to increase. In addition to the use of it for cabinetwork, furniture, doors, sills, window frames, etc., the immense timbers are employed for sleepers, beams, joists, bridges, and other like purposes. And now the streets of Buenos Ayres are being paved with red quebracho parallel-opipedons with most satisfactory results.

Several years ago a movement was made to send the red cedar of the Misiones to the United States, and several cargoes were shipped, but

the expense of getting the timber to the banks of the Paraná River and thence down to tide water, to say nothing of ocean freights, soon proved that there was no money in the enterprise.

I have heretofore referred to the company organized in this city to bring the woods of Terra del Fuego to Buenos Ayres. I understand that the project is being worked with some success. The timber received from there has the name of "caique." It is easily worked, and excellent for furniture. Here it goes under the name of "guindo." It is destined to have a good demand.

The manufacture of furniture here is an established industry. It began in 1890, when a prohibitive tariff was put upon the machine-made furniture of the United States, and it has so extended that now all the best styles and qualities of foreign furniture and cabinetwork are turned out in this city.

E. L. BAKER, *Consul.*

BUENOS AYRES, *January 24, 1896.*

TIMBER RESOURCES OF SPAIN.

But little attention is paid in Spain to the cultivation and care of forests, although they are sorely needed in almost every province, not only to supply the requirements of commerce and trade, but also to adorn the landscape, to invigorate the soil, and to preserve the crops from the devastations of droughts and floods. As a rule, such forests as do exist in Spain are remote from the littoral towns and cities, and they are, therefore, of comparatively small value, except as fuel for local purposes, inasmuch as the railway facilities for transportation are small and the freights are high. Rich as Spain is in nature's gifts, she will always remain undeveloped so long as she fails to bring the productive regions of her soil into rapid and cheap communication with her cities and towns and with the rest of the world. A country in which the trains run only 15 or 20 miles an hour can never compete with a country in which they run 30 or 40 miles an hour; nor can a country in which the freight rates are practically prohibitive compete in her own littoral markets with countries that can ship to them produce and goods at easy and advantageous rates. The distance from Barcelona to the French frontier is 103 miles. To cover that distance, it takes the express train nearly six hours; that is to say, the train goes at the rate of about 17 miles an hour, and Barcelona, be it remembered, is the largest port of Spain. Furthermore, it costs more to bring goods from Saragossa (about 200 miles from Barcelona) than by ship from England. If ever Spain realizes the importance of rapid transit, there is absolutely no reason why she should not take a good position among the wealthy and prosperous nations of the world. The wealth she has always derived from her colonies has made her indifferent to the wealth that work and intelligence could secure from her own soil, and she will doubtless remain indifferent until she is forced by

necessity to become introspective and develop her peninsular resources. She will then be able to cut down her importations very materially, especially those of minerals, cereals, and wood. Her importations of wood amount now to about \$7,000,000 annually. Of that sum, \$2,500,000 is paid for staves, most of which come from the United States. The remaining \$4,500,000 is employed in the purchase of pine from Finland, Sweden, and the United States, fir from Canada, beech from Hungary, elm from Austria, mahogany from Mexico, walnut from Italy, and from the storehouses in Havre, Bordeaux, and Marseilles considerable quantities of cedar, ebony, and sandalwood.

That a great variety of trees can be easily grown in Spain may be inferred from the fact that the following species are to be found here and are apparently thriving:

The palmetto (el palmito), found in Andalusia, Murcia, Valencia, and Catalonia.

The spruce fir tree (pinabete), a tree very common in France and Germany and very useful in building, is found in Spain in only Aragon and Catalonia.

The pine (pino) is of six kinds in Spain—el pino piñonero, used in naval construction and in carpenter work, and quite abundant in Andalusia and Castile; el pino silvestre, which grows to a height of 90 feet and is seen in the north and west of Spain; el pino negro, a wood easily polished, growing in the north of Aragon and Catalonia; el pino negral de Cuenca, which grows in nearly all the mountainous regions of Spain; el pino carrasco, which is not so tall as the other kinds, and which makes good boards, being found principally in Murcia and Valencia, and also in Catalonia and Aragon; and el pino negral de Segovia, a dark pine, very common throughout the peninsula, but not very strong or elastic.

The elm tree is of two kinds—*Ulmus campestris* and *Ulmus montana*—and is seen in many parts of Spain in valleys and near rivers and in the promenades of some cities. The wood is hard and elastic and is used in making carts and machinery.

The white poplar (alamo blanco), a very common tree in all parts of Spain and much used by carpenters.

The yew tree (el tejo), hard and compact, and found in Sierra Nevada, in the Pyrenees, and in Asturias. It is used by ebonists and turners.

The black poplar tree (chopo), light in weight and serviceable as poles and handles and in the manufacture of paper. This is one of the few trees that are cultivated in Spain.

The beech tree (haya), which grows to a height of 120 feet and forms large forests in the mountains of Navarre, Asturias, Logroño, Leon, and Santander, and grows in Burgos, Saragossa, Lerida, and Vizcaya.

The chestnut (el castaño) is useful in making staves, boards, doors, and windows. It is seen chiefly in Galicia, Asturias, Santander, Vazcongadas, and Catalonia.

The oak (*el robla*) grows in every province of Spain, and is a favorite for naval work, machinery, furniture, carts, casks, and barrels.

The cork tree (*el alcornoque*) is a great source of wealth to Spain, and forms large forests in Gerona, and is abundant in Cordova, Algeciras, Tarifa, Malaga, and Estremadura. As the forests of Gerona are near the coast, immense quantities are easily exported from there. During the year 1895 the exportations to the United States alone amounted to \$305,884.90 from Gerona and to \$208,015 from the other cork districts of Spain. Some of the forests are natural and some are cultivated; all thrive equally, and are probably the finest in the world of their kind.

The evergreen oak (*encina*) is also a very common tree in nearly all the provinces of Spain. Its wood is hard, compact, and strong, and is used in small piece work.

The birch tree (*abadul*), although ordinarily found in cold climates, grows well in the Pyrenees and is seen as far south as Madrid. The wood is used for domestic utensils, and its branches make good hoops for casks and barrels, as does also the wood of the hazelnut tree (*avellano*), which flourishes on the eastern coast of Spain.

Wood that can be easily polished is also found in the various provinces of Spain, such, for instance, as the walnut (*nogal*), juniper (*enebro*), white mulberry (*la morera*), wild olive (*acebuche*), the pear tree (*peral*), the apple tree (*manzana*), the orange tree (*naranja*), the almond tree (*almendro*), and the lemon tree (*limonero*).

As yet no great efforts have been made to test the eucalyptus tree in Spain, but there are some fine specimens of the globulus species in Catalonia, and also, I hear, in Malaga.

France is the only continental nation that seems to attach sufficient importance to the advantages to be derived from the cultivation of trees, and her experiments with the eucalyptus have already attracted some attention here, and seem destined to encourage the Spanish people to take a livelier interest in enriching and beautifying the vast tracts of their territory that are as bare of foliage as are "the lone and level sands."

HERBERT W. BOWEN,
Consul-General.

BARCELONA, *November 15, 1896.*

WOOD INDUSTRIES OF SPAIN.

There is so little wood in Spain that the small boy knows nothing of the joys of whittling, and develops no ambition to become a carpenter. The result is that the carpenters are few, and their shops are not well provided with modern tools and machinery. From molds and lathes, scarcely \$600,000 worth of goods are turned out a year in all Spain. The best shops are in Barcelona and Seville.

In Barcelona there are also many furniture factories. Beds and chairs are produced in large quantities, and the common kinds are very cheap. Much wood is imported into Spain for ornamental articles, and also considerable expensive furniture is procured, entirely finished, from France. The most famous woodwork in Spain is that of images, which, for centuries, have been carved here with signal success, and are always in great demand in the South American republics.

So far as I can learn, Barcelona is the only Spanish city that produces billiard tables, balls, and cues. They are not worthy of comparison with the same articles manufactured in the United States, but they have to serve their purpose because of the high protective duties.

Spain being a great wine country, barrels and casks are made in large numbers. Most of the staves come from the United States and Austria. The wood for corking purposes is produced in Spain. She has large cork forests. In the provinces of Gerona and Barcelona corks are made annually to the value of about \$8,000,000; moreover, \$6,000,000 worth of cork wood is annually extracted from the forests in those provinces. In Andalusia there are also extensive cork forests, but American purchasers would do well to secure their corks from the province of Gerona, as there orders can be more rapidly and satisfactorily filled.

Very little attention is given in Spain to cultivating forests, and yet the constant freshets and inundations throughout the peninsula should make the advisability of planting trees apparent. Lately, some desultory attempts to introduce the eucalyptus have been made, and very likely in time this wonderful tree will be found to be worth more to Spain than are any of her colonies.

HERBERT W. BOWEN,
Consul-General.

BARCELONA, *August 24, 1895.*

WOODS OF PARAGUAY.

Of next importance to the yerba industry in this country is its timber. Immense forests of various classes of woods are to be met with in all parts of Paraguay, whether it be inland or on the shores of the two greater rivers, the Alto Parana and Paraguay. These woods are chiefly exported in the shape of squared logs, and are transported considerable distances, often as much as 40 or 50 miles from the interior to the railway, or sent down the rivers in rafts or large barges. They are now finding ready markets in Rosario, Buenos Ayres, Montevideo, and Europe, more especially in Germany, Belgium, and France. They may be divided into two classes, viz, hard woods (*madera de ley*), which do not float, and soft woods, whose specific gravity, as a rule, is less than that of water.

The hard woods are chiefly used by the railways for sleepers, bridge

work, and general railway construction; the lighter woods, with the exception of cedar and petereby-negro, are sawn up into planks, chiefly in Asuncion, and in South America, to a great extent, take the place of pine, which wood, being imported from Europe and North America, is expensive.

The hard woods of this country will compare favorably with any wood in the world in durability and strength. It is well known that some of them, after being under ground or in water from fifty to seventy years, or even longer, are found to be perfectly sound, with only a slight superficial corrosion, and for this reason there are now large orders from Buenos Ayres and Montevideo for wood of this class for piles, which can be supplied at a less cost than pitch or creosoted pine. There are other hard woods, close grained and yet elastic, which compare favorably with the English oak and the American hickory, and others, again, which resist the wood borers and are unflammable.

As regards the soft woods, the chief export is cedar (cedro). Paraguayan cedar is far superior and commands a higher price than the cedar found in the northern parts of the Argentine Republic. It is richer in color and more durable than its bigger-growing brothers to be found in Tucuman and in the Argentine and Brazilian Misiones. The best cedar hitherto exported to Europe has come from Cuba, but the supply from there is now practically exhausted, and the revolution has put an entire stop to its exportation for the present.

Petereby-negro is a wood whose value it is difficult to overestimate. It takes a fine polish, is handsome for furniture, and is of great durability. It is highly scented and extremely light. Some of the most beautiful pieces of furniture I have seen have been made of this wood. In appearance it is not unlike American walnut, and it is also to be had with a wavy grain (crespo).

Among the various palms which are to be found in great quantities in the Paraguayan Chaco, I must not forget to mention the red and black palms. They are extremely hard and will often turn the edge of the best-tempered ax. The black palm makes a magnificent veneer, taking a beautiful polish, and when in water or under ground it is practically everlasting.

Large quantities of a small brush-like tree called espanillo, and another called algaroba (the latter scarce), are cut up into posts and sent to Buenos Ayres for fencing; and although sometimes they are not more than 2 or 3 inches in diameter, they will last under ground forty or fifty years.

I give a list of the principal woods and some of their various uses:

Ourupay.—A hard, red, heavy wood of great strength, lasting for many years underground or in water. It is chiefly of this wood that piles for docks and bridges are made, and a large demand exists for it for sleepers. The bark is used for tanning. Its price, put in Asuncion, is 45 cents (gold), 34 inches (Spanish yard) by 10 by 10.

Curupay-ria.—A species of curupay of greater weight-bearing power, but inclined to crack when exposed to the sun.

Urunday-mi.—All that applies to curupay applies to this; also the price.

Urunday-pará.—A hard wood of little or no value. I insert this as a warning to purchasers not to confound it with urunday-mi.

Tinibó.—A light wood, not unlike cedar in grain, and as it often grows to an immense size, it is much used for dugout canoes and troughs for water and treacle. It is used also for shingles for roofing. But little of this wood is exported.

Tatajibá (Sp-mora).—A hard, yellow wood, used for sleepers, but, in my opinion, overrated on account of its decaying when in moist earth.

Tataná.—A handsome yellow hard wood. It makes an excellent veneer, is very durable underground, and resists insects and fire. It would be difficult to overestimate this wood. It is much sought after by shipbuilders for shoulders and stem and stern posts.

Guayabi.—Very flexible and elastic; greatly used here for bullock yokes and ax handles, being preferred to the hickory of North America.

Petereby blanco.—A light wood; of little use except when cut up for rough boxes.

Petereby negro.—One of the best woods in the country. It is much used for masts on account of its great length. The price of this, put in Asuncion, is 55 cents (gold), 34 by 10 by 10 inches.

Palo santo.—Only found in the Paraguayan Chaco. Much used for its chemical properties and for fancy work in lathe turning.

Quebracho negro.—The king of hard woods. The signification of the name is "ax breaker." There is no wood known to surpass it for durability and longevity either in earth or water. It is sent to Europe for tanning purposes. It fetches as much as \$10 (gold) a ton in Buenos Ayres.

Quebracho blanco.—Has almost the same properties as the other, but is of no use for tanning. A tonic is made from the bark, said to be beneficial in pulmonary diseases.

Lapacho.—Erroneously supposed to be what is known in Brazil and other parts as greenheart. Immense quantities of this are shipped to Buenos Ayres for railway and shipbuilding purposes. It is a greenish-yellow wood, which does not readily crack, and is of immense strength. It is not good for piles or damp soil. The "crespo" or curled class has a beautiful appearance, and makes handsome, but heavy furniture. I would warn purchasers of its extreme inflammability. Its price in Asuncion is 35 cents (gold), 34 by 10 by 10 inches.

Ibyrapytyé.—An overrated wood much exported to Buenos Ayres for railway carriage and shipbuilding. It is heavy and hard and impervious to the direct action of water, but unless very well seasoned warps considerably.

Iviraró (bitter).—One of the best woods of the country; close grained,

not unlike oak in appearance. It has this great advantage—it does not crack and is invariably sound in its heart. This wood is used by the natives for the hubs or boxes of wheels and fellies, and these native-made wheels are, as a rule, made without iron tires, proving the extreme hardness and durability of the wood, for the roads in Paraguay are of the roughest description. This wood I can with safety recommend to shipbuilders, carriage makers, and carpenters; it is durable, strong, and easily worked. The price, put in Asuncion, is 55 cents (gold), 34 by 10 by 10 inches.

Iviraró-mi.—A fine, closer-grained class than the above, somewhat scarce, therefore commanding a high price. It is invaluable for engraving blocks.

Incienso.—The sap of this is the incense of commerce, but for some reason there is no trade in it except for local purposes. Of late there has been a demand for the wood for parquet flooring, on account of its scent, durability, and hardness. Price, 45 cents (gold), 34 by 10 by 10 inches, but seldom to be had more than 12 by 12 inches square.

Palo blanco.—One of the commonest and tallest trees of Paraguay. This wood takes its name from its bark and not from the color of the wood, which is whitish yellow, with a strain of black. Although heavy, it is largely used here and in Buenos Ayres instead of pine. It is practically everlasting when not exposed to wind and weather. It has this great advantage—dry rot and borers never touch it. It is easily worked. Price, 35 cents (gold).

Cedro.—The price of this wood is rising in leaps and bounds. It is just now particularly in demand on account of the Cuban revolution, and it would be difficult to exaggerate its value in the immediate future, as the quantity now left is very limited. For durability and for retaining its scent it is thought to be superior to any other cedar hitherto used in the manufacture of cigar boxes and receptacles for the preservation of apparel from the depredations of insects. The price, put in Asuncion, is 60 cents (gold), 34 by 10 by 10 inches.

I have delayed forwarding this report on account of the nonarrival of samples of the woods I describe. The minister of the interior ordered samples to be sent to the consulate free of charge, but as yet they have not been delivered.

SAMUEL W. THOMÉ, *Consul*.

ASUNCION, June 5, 1896.

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Walter Mulford

INFLUENCE OF FORESTRY UPON THE LUMBER INDUSTRY.

BY

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THE INFLUENCE OF FORESTRY UPON THE LUMBER INDUSTRY.

By OVERTON W. PRICE,
Assistant Forester, Bureau of Forestry.

DEVELOPMENT OF THE LUMBER INDUSTRY.

The development of the lumber industry in this country is without parallel. It now ranks fourth among the great manufacturing industries of the United States, and represents an invested capital of about \$611,000,000 and an annual outlay of over \$100,000,000 in wages. It affords through its three great branches—the logging industry, the sawmill industry, and the planing-mill industry—a means of livelihood to considerably over a million persons. The annual value of the products, which has multiplied nearly ten times in the last half century, is \$566,000,000. But although the rapid development of the lumber industry has had far-reaching results in furthering every branch of manufacture which depends upon wood, it has been fundamentally unsound in principle. The settler who cuts and sells trees without forethought from land fit only for forest growth has not enriched himself in the long run. The havoc which has been wrought in the forests of the United States has turned trees into money, but has put the balance on the wrong side of the sheet by rendering vast areas unproductive. It is the history of all great industries directed by private interests that the necessity for modification is not seen until the harm has been done and its results are felt. This fact has been emphasized in the lumber industry—in the earlier days by the instinctive feeling of the colonist against his natural enemy, the forest, and later by the remarkable inducements offered by lumbering for present profit only. The first settlers had two objects in view in their attack upon the forest—the one to clear land for their farms, the other to procure wood for their buildings, fuel, and fences. As the tide of colonization rose, and as the uses for wood in manufacture increased in number and extent, lumbering rapidly assumed the proportions of a business enterprise, and from supplying only personal wants it became profitable to supply also those of others. With an apparently inexhaustible supply of timber available, and with an insistent and growing demand, the lumber industry came to offer remarkable opportunities for money making. Step by step with its development improvement in tools and machinery took place. The changes that enterprise and ingenuity have wrought in the American sawmill are no less wonderful than those which have taken place in the

American locomotive. From "whip sawing," in which the boards were sawed out by hand, to the modern steam sawmill, with its railroad (Pl. XXX), its planing mill, and its cut of nearly half a million board feet per day, is a long step—but it has not taken much over fifty years to accomplish it. In effective methods for the harvesting and manufacture of lumber the American lumberman has no superior, nor is he equaled in his disregard for the future of the forest which he cuts.

SOME RESULTS TO BE SECURED BY CONSERVATIVE LUMBERING.

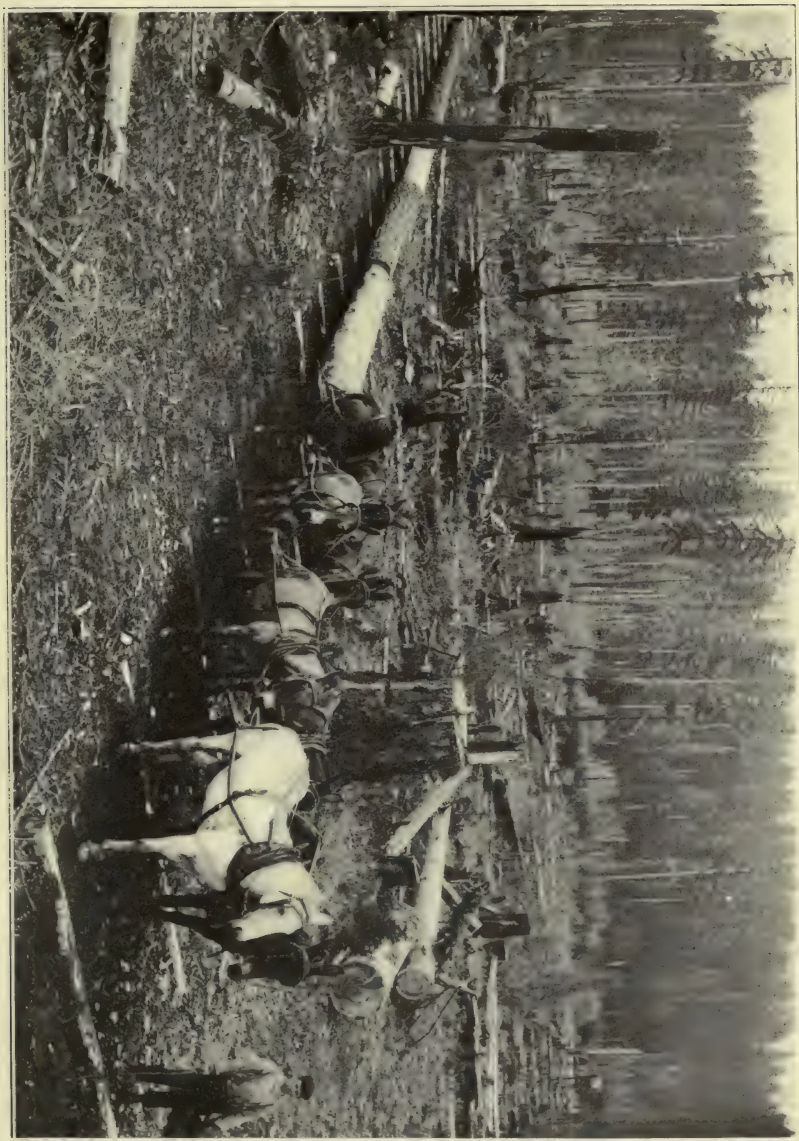
It is natural that the lumberman should not turn eagerly from a system whose only aim is to secure the highest possible present profit from the forest to one which includes provisions for the production of a second crop upon the lumbered area. Under conservative methods lumbering becomes a legitimate industry for the production as well as for the consumption of its staple. It no longer offers, however, the short cut to fortune which it proved to be so long as an abundance of timber rendered the old methods of lumbering possible. It is difficult for lumbermen generally to realize that the time for practical forestry has fully arrived. But signs more significant than any existing statistics point to the imminent failure in the supply of certain timbers in the United States. From the data available, there is no way to foretell accurately the time necessary to exhaust this supply of merchantable timber at the present rate of consumption. A good many estimates of the merchantable timber standing have been made, some of which have already proved fallacious. To predict accurately how long it will be before the United States is confronted by a timber famine would require first of all a knowledge of the composition, quality, and condition of the forests, which it would take many years to obtain. At present such an estimate is of little practical value. We do know that the supply of timber of many kinds is failing, of other kinds is almost exhausted, and of others is practically gone; that Black Walnut is no more to be had except in small quantities and at enormous expense; that first-growth White Pine is growing rapidly to be a rarity on the market; that where the supply of spruce for pulpwood and for lumber for the next ten years is to be found is a grave question before the lumbermen to-day. The list of woods accepted as merchantable lengthens from year to year, species hitherto considered valueless being harvested more and more willingly as the result of the exhaustion of more valuable kinds. In spite of steady improvement in tools, logging outfits, and mill machinery, all tending to cheapen the cost of lumbering, the price of lumber increases steadily and rapidly. These are facts more significant than predictions in terms of years of the life of the lumber industry. The exact period for which the existing supplies are sufficient is a matter of



FIG. 1.—WHIP SAWING IN THE KENTUCKY MOUNTAINS.



FIG. 2.—A MODERN SAWMILL IN THE SIERRAS, CALIFORNIA.



CUT-OVER RED FIR LAND.



FIG. 1.—THE RESULT OF LUMBERING AND FIRE IN MINNESOTA.



FIG. 2.—LOGGING RED FIR IN WASHINGTON.

detail. The vital point lies in the crisis which the lumber industry is approaching in the exhaustion of the material on which its existence depends. (See Pls. XXXI and XXXII.)

ELIMINATION OF THE LARGE SAWMILL.

The general application of forestry to forest lands owned by lumbermen will probably result in the gradual elimination of the large sawmill and the substitution of those of moderate size. The mammoth milling plant will be rare when only second growth is left to supply it, for the area of timber land sufficient to produce the logs necessary to run such a plant is enormous. It is reasonable to expect that the mill of moderate size, supplied by a forest whose production is equal to the mill's annual capacity, both under the same management, will become more and more the rule. The very existence of the enormous mill is the result of an abundance of timber resources, which exist no longer except in a very few sections. In Europe the long-continued application of conservative measures in lumbering has resulted in a distribution and type of sawmill little known in this country. Sawmills of large size do not exist, but in their stead small sawmills, for which water generally supplies the power, are distributed throughout the country wherever the local demand is sufficient to keep them running. Their annual cut is for the most part exceedingly small, according to our standards, and sufficient only to supply the wants of the immediately adjacent country. The mills saw largely on order, and the fact that their construction is permanent and their motive power cheap enables them to run intermittently without loss. The results are upon the whole exceedingly satisfactory. The man who wants lumber gets it promptly, and without paying an added cost for long transportation. The antiquated construction of European sawmills is often such that the American lumberman would find in them but a proof of his superior ingenuity; but the European distribution of milling plants has its strong advantages in several ways.

DEVELOPMENT OF A TRAINED CLASS OF FOREST WORKERS.

The general application of conservative methods in lumbering will inevitably result, as has been the case in Europe, in the development of a permanent class of men trained to forest work. Under present methods this result can never be attained to the same degree. The lumbering in one community is generally so short-lived that there is neither time nor necessity to train up a body of men on the ground to carry out the work. The result is that Maine and Michigan woodsmen are found working in the hardwoods of the Southern Appalachians; loggers from Wisconsin and Minnesota are helping to cut the redwood on the Pacific coast; and in each of the great timber regions there is a mingling of lumbermen from several of the others. The effect has been to develop, by constant labor at their trade under widely varying

conditions, a force of men who are unequaled for enterprise and skill in their profession; but the system has very largely failed in what is of infinitely greater importance to the permanent welfare of the lumber industry—the upbuilding throughout the country of a stable class of workers in the woods, locally trained and carrying on their work each in his own community. The advantages of such a condition lie in an equitable geographical distribution of labor, in the wholesome influence throughout the country of a class whose means of livelihood is forest work, and in the fact that all the operations of lumbering may in this way be conducted more cheaply than in any other.

INFLUENCE OF FORESTRY UPON THE PRICES OF LUMBER.

The effect upon the prices of lumber which will result from the application of forestry to the lumber industry will be strongly marked. The wide fluctuation characteristic of lumber values to-day is much more the result of conditions within the industry itself than of variations in the demand for the product of the forest. The uncertainty of available supplies, the lack of true proportion between stumpage values and lumber values, the speculative features which the industry now presents, have all tended to produce an exceedingly unstable and abnormal fluctuation in the prices of lumber, with a marked disposition toward rapid increase. Under forestry the speculative element can not exist. The cost of producing timber, plus a legitimate profit, will be the basis upon which the value of it will be fixed. The annual output of the country will be no longer a matter of conjecture, and a steady and normal range of prices for lumber will be the inevitable result.

CONCLUSION.

The influence of forestry upon the lumber industry is not a matter of conjecture. The details will have to work themselves out, but the broad results of conservative forest policy on the part of private owners are plain. The lumber industry in the United States is approaching a crisis. There is no more doubt that conservative methods will be applied to lumbering in this country than there is of the development of irrigation, of regulation of grazing, of the application of improved methods in agriculture, or of any other modification to which private as well as public interests point the way. How long it will be before the results of practical forestry make themselves generally felt it is impossible to foretell; but the fact remains that there will be established in this as in other countries in which conservative lumbering has followed wasteful lumbering a legitimate and permanent industry, characterized, as has been stated, by conditions under which speculation can not exist. Prices will continue normal and steady, and the quantity of timber produced will be the main factor in regulating consumption.

United States Department of Agriculture,

FOREST SERVICE—CIRCULAR 107.

Walter Mulford
GIFFORD PINCHOT, Forester.

SAWMILL STATISTICS.

A compilation of the reports received from over 10,000 sawmills in the United States upon their operations in 1905 gives the accompanying table, in which are shown the proportion of lumber kiln-dried and the proportion surfaced, the amount of slab wood sold, and the proportion of logs cut on lands belonging to the sawmill operators. No figures along these lines are available for New York, and none are given for several of the States in which the cut was very small.

The States in which the largest proportion of lumber is kiln-dried by manufacturers are South Carolina, with 51.3 per cent; North Carolina, with 36.5 per cent; Florida, with 35.9 per cent; Alabama, with 34.8 per cent; and Georgia, with 30.6 per cent. In other States the amount is less than 30 per cent. Altogether, 1,642 mills reported the use of dry kilns.

A large amount of the pine cut in the South is kiln-dried in order to reduce its shipping weight, and this is especially true of loblolly or North Carolina pine. Kiln-drying is practiced to a less extent in the Rocky Mountain and Pacific coast States, and very little lumber is kiln-dried by the sawmill operators in the hardwood region or where the cut is principally by portable mills. For the country as a whole, about 15 per cent of the lumber cut is kiln-dried at the mill.

A much larger proportion of the cut is surfaced at the mills than is kiln-dried. Of the mills reporting, more than 3,900 surfaced a portion of their cut. For the country as a whole, at least 35 per cent is surfaced before it is shipped. In this respect Iowa leads, with 77.2 per cent surfaced; but this is because most of the lumber cut in that State is in a few big mills along the Mississippi which operate exclusively on northern pine. Aside from Iowa, the States in which the larger proportion of the cut is surfaced at the sawmill are Texas, with 71.7 per cent; Louisiana, with 60.3 per cent; Idaho, 59.4 per cent; Montana, 55.2 per cent; and Arkansas, with 50.6 per cent. In all the other States less than half the cut is surfaced by the sawmill operators, and, as in kiln-drying, a relatively small proportion of the total cut is surfaced in the hardwood regions.

Some 4,000 mills reported sales of slab wood totaling 3,503,287 cords. Washington leads in this respect, with 559,231 cords, followed by Michigan, with 523,518 cords; Wisconsin, with 368,478 cords; and Virginia, with 213,522 cords. It is probably safe to assume that this

slab and waste wood brought on an average \$1 a cord; hence its sale was a considerable source of revenue to many mills.

The percentage of sawed logs which were cut from holdings of sawmill operators is shown in the last column. Considering only the important lumber-producing States, it is interesting to note that the proportions of output reported as sawed from logs cut on the lands owned by the sawmill operators range from 97.4 per cent in California to 34.5 per cent in Washington. The lumber companies in California do their own logging largely on their own holdings, and get but a relatively small quantity of logs from other sources. In Washington most of the logging is done by firms which buy stumpage and deliver logs to the sawmills for a fixed contract price, so that in this case the operator of a mill may own little or no timberland.

Sawmill statistics, 1905.

State.	Mills reporting.	Average cut.	Per cent of lumber kiln-dried.	Per cent of lumber surfaced.	Slab wood sold.	Per cent logged on own land.
	<i>Number.</i>	<i>M feet.</i>			<i>Cords.</i>	
Alabama.....	326	2,589	34.8	37.3	127,536	79.6
Arkansas.....	466	3,194	28.4	50.6	42,909	77.5
California.....	175	6,066	9.5	34.6	39,988	97.4
Colorado.....	52	1,091	.....	23.5	3,880	65.2
Connecticut.....	98	751	2	5.1	19,110	87.6
Delaware.....	29	423	.....	8.8	3,860	96.5
Florida.....	13	5,350	35.9	33.8	35,550	85.4
Georgia.....	349	2,042	30.6	27.3	26,945	92.4
Idaho.....	54	3,939	12.5	59.4	7,608	36.4
Illinois.....	174	684	7	27.5	20,282	34.6
Indiana.....	461	764	2.1	5.9	168,426	58.7
Iowa.....	30	4,316	.....	77.2	33,520	31.9
Kentucky.....	426	1,091	2.1	15.5	25,245	47.9
Louisiana.....	236	9,720	28.6	60.3	66,242	85.5
Maine.....	373	1,959	1.1	23.7	186,202	45.8
Maryland.....	114	1,436	26.1	32.2	20,664	94.2
Massachusetts.....	251	1,007	3	25.3	39,934	65.7
Michigan.....	487	3,935	4.5	16.6	523,518	62.9
Minnesota.....	174	11,068	1.1	39.8	165,001	36.2
Mississippi.....	355	3,660	29.3	34.6	33,509	82.5
Missouri.....	225	1,610	11.6	36.3	19,291	79.7
Montana.....	23	8,230	3.4	55.2	13,573	44.2
New Hampshire.....	278	1,226	2.3	21.5	29,606	61.9
New Jersey.....	66	268	.....	13.3	9,540	82.6
North Carolina.....	671	1,610	36.5	22.4	68,931	68.5
Ohio.....	541	613	1.6	11.3	101,239	51.1
Oregon.....	319	3,958	15.5	46.2	190,536	53.8
Pennsylvania.....	714	1,957	2.1	13.4	176,689	73.9
Rhode Island.....	16	878	.....	7.7	1,210	78.6
South Carolina.....	205	2,275	51.3	25.6	33,415	88.4
South Dakota.....	15	767	2	18.1	1,923	94.1
Tennessee.....	495	1,093	4.7	17.1	40,734	50.8
Texas.....	165	5,636	26.0	71.7	10,234	85.4
Utah.....	21	172	.....	18.2	245	98.1
Vermont.....	287	929	4.7	40.1	56,154	52.8
Virginia.....	458	1,562	24.0	22.2	213,522	89.9
Washington.....	557	7,033	15.2	35.4	559,231	34.5
West Virginia.....	285	2,361	2.4	14.2	18,267	67.6
Wisconsin.....	407	6,249	2.5	37.3	368,478	50.4
Wyoming.....	14	311	2	24.1	540	81.1
Total.....	10,460				3,503,287	

Approved:

JAMES WILSON,

Secretary.

WASHINGTON, D. C., June 3, 1907.

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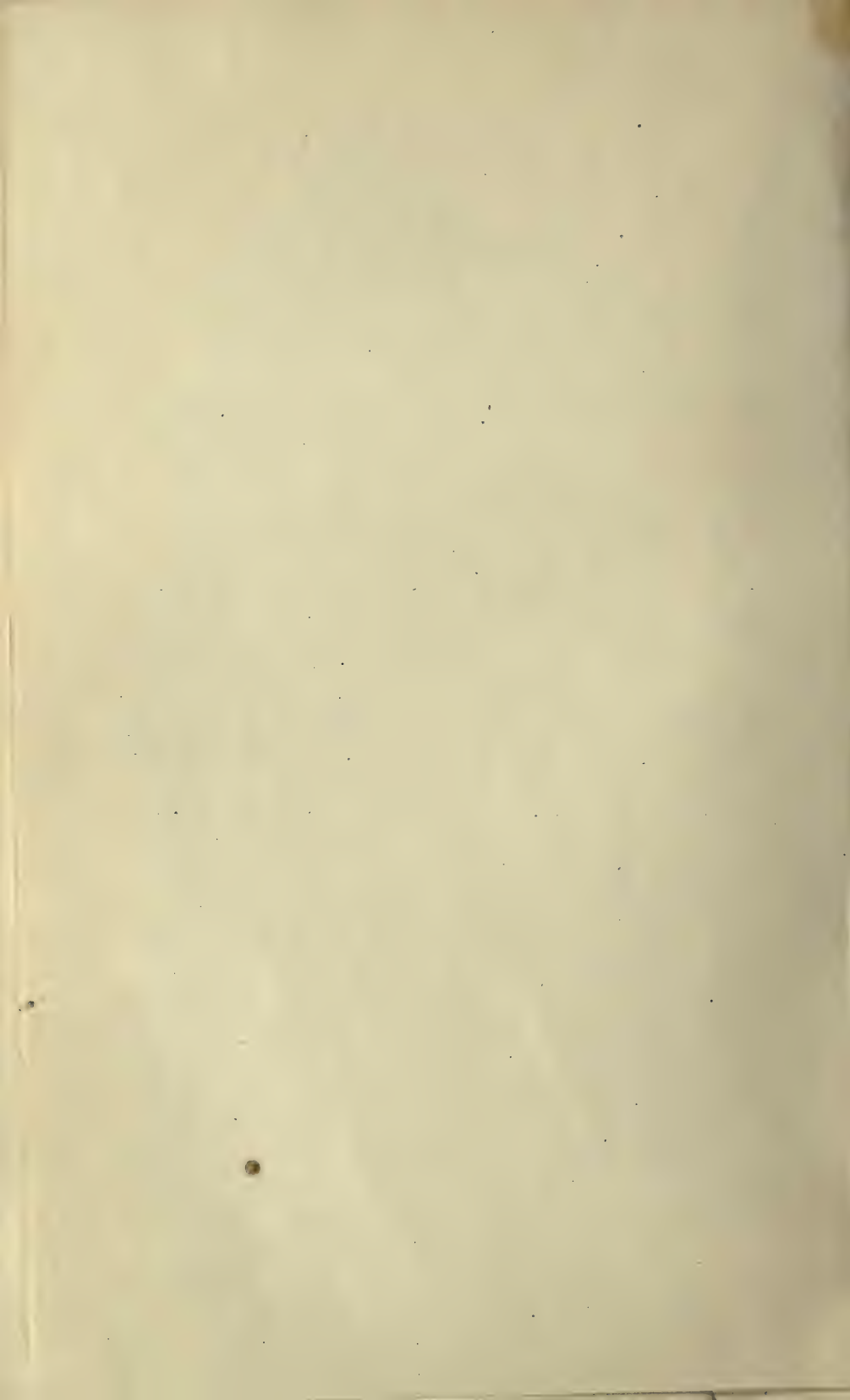
U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

RECORD OF
WHOLESALE PRICES OF LUMBER
(PER 1,000 FEET B. M.)

Based on actual sales made F. O. B. Mill

for

APRIL, MAY and JUNE, 1909.



PREFATORY NOTE

The Forest Service has two main purposes in collecting and compiling this record of f. o. b. mill prices: first, to have a continuous statistical record of such prices of the various commercial woods; and, second, to show, in contrast to market prices—which include the important items of freight charges and selling costs—just what the manufacturers of lumber receive for their product at the mill. The prices given are wholesale, based on actual sales f. o. b. mill, for delivery outside of local territory. Only a few representative grades and the mill run are included. By mill run is meant the average of all grades of lumber produced. The record is compiled by states, and is made up from reports received from approximately 2,000 of the largest manufacturers scattered throughout the country. It will be published quarterly.

The Forest Service wishes to acknowledge the courtesy of the manufacturers for their prompt and efficient coöperation. Their assistance has been of great value in making the record complete accurate, and promptly available for distribution.

	SPECIES	GRADE
1	Cedar, Western Red.....	Beveled Siding No. 1, 1"x6"
2	Do.....	Shop No. 2, 1" and 1 1/4"x8"
3	Do.....	Shingles, Perfection, 18"
4	Do.....	Shingles, Extra Clear, 5/2"-16"
5	Do.....	Star-A-Star, 6/2"-16"
6	Do.....	Mill run.
7	Fir, Douglas.....	Flooring No. 1, v. g., 1"x4"
8	Do.....	Flooring No. 2, v. g., 1"x4"
9	Do.....	Flooring No. 2, flat, 1"x4"
10	Do.....	Finish No. 2 and better, 6" and 8"
11	Do.....	Drop Siding, No. 2 slash.....
12	Do.....	Dimension, Com., S1S1E, 2"x12"-16"
13	Do.....	Car sills, 5"x8"-36"
14	Do.....	Timbers, 12"x12", average 32'
15	Do.....	Cross-ties, 7"x9", average 32'
16	Do.....	Lath, per M.....
17	Do.....	Mill run.....
18	Fir, White.....	Common boards, 6" and 8"
19	Do.....	Lath, per M.....
20	Do.....	Mill run.....
21	Hemlock, Western.....	Flooring, Nos. 1 and 2, v. g., 1"x4"
22	Do.....	Finish, Nos. 1 and 2, 5" and wider.....
23	Do.....	Dimension, No. 1 Com., 2"x4" to 2"x8"
24	Do.....	Shiplap, 1"
25	Do.....	Shop No. 1, 1 1/4"x8" and wider.....
26	Do.....	Mill run.....
27	Larch, Western.....	Flooring, A and B (Nos. 1 and 2 clear), 1"x4"
28	Do.....	Finish, A and B (Nos. 1 and 2 clear), 1"x8"
29	Do.....	Drop siding, A and B (Nos. 1 and 2 clear), 1"x6"
30	Do.....	Common boards, No. 2, 1"x8"-16'
31	Do.....	Dimension, No. 1 Com., 2"x8"-16'
32	Do.....	Lath, per M.....
33	Do.....	Mill run.....
34	Pine, Sugar.....	Firsts and seconds, clear.....
35	Do.....	Shop No. 1, 2"x8" and wider.....
36	Do.....	Shop No. 2, 2"x8" and wider.....
37	Do.....	Mill run.....
38	Pine, Western White.....	Finish, C select, 8"
39	Do (Idaho White).....	Finish, D select, 8"
40	Do.....	Beveled siding, B and better, 4" and 6"
41	Do.....	Beveled siding, C, 4" and 6"
42	Do.....	Common boards, No. 2, 6" and 8"
43	Do.....	Mill run.....
44	Pine, Western Yellow.....	Flooring, B and better (Nos. 1 and 2 clear), 4" and 6"-16'
45	Do (Including Western Pine, California White Pine, New Mexico White Pine).....	Finish, B select and better, 1"x10"-16'
46	Do.....	Finish, C select, 8"
47	Do.....	Beveled siding, B and better, 4" and 6"
48	Do.....	Beveled siding, C, 4" and 6"
49	Do.....	Shop No. 1, 6/4.....
50	Do.....	Shop No. 2, 6/4.....
51	Do.....	Common boards, No. 2, 1"x8"-16'
52	Do.....	Dimension, No. 1 Com., 2"x8"-16'
53	Do.....	Lath No. 1, per M.....
54	Do.....	Mill run.....
55	Redwood.....	Clear, 6" to 12", 10' to 20'
56	Do.....	Sappy clear, 6" to 8", 10' to 20'
57	Do.....	Common boards No. 1.....
58	Do.....	Common boards No. 2.....
59	Do.....	Cross-ties, 6"x8"-8'
60	Do.....	Shingles No. 1, per M.....
61	Do.....	Shingles No. 2, per M.....
62	Do.....	Mill run.....
63	Spruce, Sitka.....	Firsts and seconds, clear, 12"
64	Do (Western Spruce).....	Flooring, A, 1"x4", 6" and up.....
65	Do.....	Shop No. 2, 1 1/4"x8" and wider.....
66	Do.....	Box lumber No. 2.....
67	Do.....	Mill run.....

	Colorado	California	Oregon	Washington	Idaho	Montana	
1			22.00	21.18			1
2			16.23	14.80			2
3							3
4				1.99			4
5				1.62			5
6				14.75			6
7			27.66	26.25	29.00		7
8			24.45	24.15	24.50		8
9		23.00	18.38	16.32	22.50		9
10			23.57	21.80	23.00		10
11			19.50	16.97			11
12			9.32	9.30	14.33		12
13			14.20	12.48			13
14		12.25	9.80	9.28			14
15			9.07	8.61			15
16			1.76	1.64	3.50		16
17	13.25		12.62	12.87	13.70	12.50	17
18		12.55		8.60	10.66		18
19							19
20					10.83		20
21				23.17	27.25		21
22			25.50	22.00	26.00		22
23			9.25	8.20	9.50		23
24			9.75	9.07	13.50		24
25					24.00		25
26			10.38	9.65	14.12		26
27					25.12	20.89	27
28					23.37	25.71	28
29					24.16	21.83	29
30			11.25		10.83	14.52	30
31				10.00	10.46	12.12	31
32					1.80	1.90	32
33					13.33	13.93	33
34		50.56					34
35		30.55					35
36		21.70					36
37							37
38	26.50				29.25	30.00	38
39					23.61	23.50	39
40					21.50	19.75	40
41					17.80	15.50	41
42					13.64		42
43	12.50				15.23		43
44		36.83		37.00	38.64	38.69	44
45			41.33	36.00	37.25	41.25	45
46			33.00	30.50	27.50	34.50	46
47			23.00	19.50	20.58	22.37	47
48			19.50	17.00	17.08	18.50	48
49		25.66	25.33	25.17	24.79	26.50	49
50		18.58	17.33	16.17	19.12	17.50	50
51	11.10	15.25	16.50	14.12	14.18	16.75	51
52	12.47			9.75	11.29	13.91	52
53	4.08		2.95		3.06	2.85	53
54	13.50	13.53	15.87		13.83	14.44	54
55		24.79					55
56		20.29					56
57		13.54					57
58		10.55					58
59							59
60		1.62					60
61		1.07					61
62		17.12					62
63				27.00			63
64							64
65			17.50	14.70			65
66			10.50	8.25			66
67	13.33			11.83			67

SPECIES

GRADE

1	Hemlock	2" piece stuff, S1S1E, 2"x4"-16'
2	Do (Lake States)	Boards, No. 1, S1S, 1"x8"-16'
3	Do	Timbers, rough, 4"x4" to 8"x8"-16'
4	Do	Fencing No. 1, S1S, 1"x6"
5	Do	Lath No. 1, 3/8"-4'
6	Do	Mill run
7	Hemlock	8/4 merch. piece stuff, 16'
8	Do (Eastern and West Virginia)	4/4 merch. 6" and 8"-16'
9	Do	4/4 merch. 10" and 12"-16'
10	Do	4/4 merch. boards, 6" and up, S1S, clipped, 12', 14' and 16'
11	Do	4/4 boards, No. 2, 1"x4"-12", 6'-20'
12	Do	Mill run, mill culls out
13	Do	Mill culls
14	Do	Mill run
15	Pine	Flooring, No. 2, 1"x4"x10'-16'
16	Do (North Carolina)	Flooring, No. 3, 1"x4"x10'-16'
17	Do	Dimension (air dried), 2"x8"-16' and under
18	Do	Roofers, 1"x8", D. & M.
19	Do	Partition No. 1, 13/16"x3 1/2", 10'-16'
20	Do	No. 1 edge 4/4, under 12"
21	Do	Box edge 4/4, under 12"
22	Do	Mill run
23	Pine, white	Selects C and better, 5/4 (M. L.)
24	Do	Inch finish, 10" (M. L.)
25	Do	Shop No. 1, 8/4 (M. L.)
26	Do	Shop No. 3, 5/4 (M. L.)
27	Do	Beveled siding, C, 6"-16'
28	Do	Boards No. 2, 1"x8"-16'
29	Do	Boards No. 3, 12", 10'-20'
30	Do	Boards No. 4, 8" and under, 10'-20'
31	Do	Fencing No. 2, S1S, 6"-16'
32	Do	Lath No. 1
33	Do	Lath No. 1 (mixed)
34	Do	Mill run
35	Pine, yellow	Flooring, B, v. g., 13/16"x3 1/2"
36	Do (Mississippi Valley Mills)	Flooring, B and better, flat, 13/16"x3 1/2"
37	Do	Finish, B and better, 6" and wider
38	Do	Dimension No. 1, S1S1E, 2"x8"-16'
39	Do	Com. boards No. 1, S2S, 1"x10"
40	Do	Timbers, S1S1E, 4"x4"-16'
41	Do	Car sills, 5 1/4"x9 1/2"-36"
42	Do	Car siding, B and better, 1"x4" and 6"x9"-18'
43	Do	Car siding, B and better, 1"x4" and 6"x10"-20'
44	Do	Com. car lining, No. 1, 1" x6"x10'-20'
45	Do	Lath No. 1, 3/8"
46	Do	Mill run
47	Pine, yellow	Finish, B and better, 6" and wider
48	Do (Atlantic Coast Mills)	Flooring, B and better, heart rift, 13/16"x2 1/2"
49	Do	Flooring, B and better, sap rift, 13/16"x2 1/2"
50	Do	Flooring, B, heart rift, 13/16"x2 1/2"
51	Do	Flooring, B, sap rift, 13/16"x2 1/2"
52	Do	Flooring, B, sap flat, 13/16"x3 1/2"
53	Do	Com. boards, No. 1, S2S, 1"x10"x10'-16'
54	Do	Com. boards, No. 2, S2S, 1"x10"x10'-16'
		Plank and dimensions:
55	Do Merch. grade (Sail)	Sizes 2"x9" to 8"x8", average 24'
56	Do	Sizes 2"x9" to 10"x10", average 24'
57	Do	Sizes 2"x12" to 12"x12", average 24'
58	Do	Sizes 2"x14" to 14"x14", average 24'
59	Do	Sizes 2"x16" to 16"x16", average 24'
60	Do	Mill run
61	Spruce (Eastern)	Merch. frames 9" and under, 24' and under
62	Do	Merch. frames 10" and 12", 24' and under
63	Do	Merch. random 10" and 12", 10' and up
64	Do	Merch. 2"x7" and under, 10' to 24'
65	Do	Merch. 2"x8" and up, 10' to 24'
66	Do	Lath, 1 1/2"
67	Do	Mill run
68	Do (Adirondack)	Mill run, mill culls out
69	Do	No. 1 and clear
70	Do	No. 2
71	Do	No. 3
72	Do	Mill culls
73	Do	Mill run
74	Do (West Virginia)	Merch. frames 3"x4" to 8"x8", 10'-16'
75	Do	Merch. frames 2"x12" to 12"x12", 10'-16'
76	Do	Boards, merch., 1"x12", 10'-20'
77	Do	Boards, box, 1"x4"-12"
78	Do	Mill run

	Texas	Arkansas	Louisiana	Mississippi	Missouri	Alabama	Florida	Georgia	South Carolina	North Carolina	Tennessee	Kentucky	Virginia	
1														1
2														2
3														3
4														4
5														5
6														6
7														7
8											13.75	15.75		8
9											14.12	17.25		9
10											14.50			10
11											10.33			11
12											12.37			12
13											7.75			13
14											12.47			14
15									19.27	18.50				15
16									15.90	14.82				16
17									9.66	11.12			10.00	17
18									12.25	12.25				18
19									23.00	23.56				19
20									20.30	21.54				20
21									9.90	10.53			18.12	21
22									12.89	11.64			10.80	22
23										50.00			13.23	23
24														24
25										42.66				25
26														26
27											28.00			27
28										21.50	27.00			28
29											25.00			29
30											19.00			30
31											26.00			31
32											3.40			32
33											2.17			33
34											19.39			34
35	28.13	27.32	27.46	26.00		28.00								35
36	14.23	17.99	17.93	17.00	20.31	17.29	17.05	17.25						36
37	21.63	23.66	22.39	20.79	24.25	19.73	19.50	19.25						37
38	10.53	10.56	9.57	11.03	12.37	10.58	10.33	9.50						38
39	12.30	12.58	13.17	13.78	13.83	13.03	10.66	16.25						39
40	11.09	12.33	11.47	10.62	13.87	11.00								40
41			19.50	13.00			12.83	12.75						41
42	18.25	18.19	17.64	18.00	17.50	18.50	19.66	18.25						42
43	16.88	17.94	17.22			17.58								43
44	12.36	12.78	13.12	12.83		13.31	16.00							44
45	1.50	1.55	1.39	1.41	1.38	1.33								45
46	12.58	13.82	12.66	13.73	13.75	13.49								46
47														47
48						47.50		39.00						48
49	29.33					31.17		32.25						49
50						37.00		32.65						50
51	29.50					29.31		28.35						51
52	17.87					17.35	15.45	18.50						52
53	12.12					13.25	13.76							53
54	10.17					9.75	11.10							54
55	10.50						8.49	10.25						55
56	9.17						11.37							56
57	10.83						13.48	10.35						57
58	13.25						16.03	11.50						58
59	15.75						18.12	13.25						59
60	11.08					15.88	16.04	12.50	13.05				13.25	60
61														61
62														62
63														63
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SPECIES

GRADE

1	Hemlock	2" piece stuff, S1S1E, 2"x4"-16'
2	Do (Lake States)	Boards, No. 1, S1S, 1"x8"-16'
3	Do	Timbers, rough, 4"x4" to 8"x8"-16'
4	Do	Fencing No. 1, S1S, 1"x6"
5	Do	Lath No. 1, 3/8"-4"
6	Do	Mill run
7	Hemlock	8/4 merch. piece stuff, 16'
8	Do (Eastern and West Virginia)	4/4 merch. 6" and 8"-16'
9	Do	4/4 merch. 10" and 12"-16'
10	Do	4/4 merch. boards, 6" and up, S1S, clipped, 12', 14' and 16'
11	Do	4/4 boards, No. 2, 1"x4"-12", 6'-20'
12	Do	Mill run, mill culls out
13	Do	Mill culls
14	Do	Mill run
15	Pine	Flooring, No. 2, 1"x4"x10'-16'
16	Do (North Carolina)	Flooring, No. 3, 1"x4"x10'-16'
17	Do	Dimension (air dried), 2"x8"-16' and under
18	Do	Roofers, 1"x8", D. & M.
19	Do	Partition No. 1, 13/16"x3 1/2", 10'-16'
20	Do	No. 1 edge 4/4, under 12"
21	Do	Box edge 4/4, under 12"
22	Do	Mill run
23	Pine, white	Selects C and better, 5/4 (M. L.)
24	Do	Inch finish, 10" (M. L.)
25	Do	Shop No. 1, 8/4 (M. L.)
26	Do	Shop No. 3, 5/4 (M. L.)
27	Do	Beveled siding, C, 6"-16'
28	Do	Boards No. 2, 1"x8"-16'
29	Do	Boards No. 3, 12", 10'-20'
30	Do	Boards No. 4, 8" and under, 10'-20'
31	Do	Fencing No. 2, S1S, 6"-16'
32	Do	Lath No. 1
33	Do	Lath No. 1 (mixed)
34	Do	Mill run
35	Pine, yellow	Flooring, B, v. g., 13/16"x3 1/2"
36	Do (Mississippi Valley Mills)	Flooring, B and better, flat, 13/16"x3 1/2"
37	Do	Finish, B and better, 6" and wider
38	Do	Dimension No. 1, S1S1E, 2"x8"-16'
39	Do	Com. boards No. 1, S2S, 1"x10"
40	Do	Timbers, S1S1E, 4"x4"-16'
41	Do	Car sills, 5 1/2"x9 1/2"-36'
42	Do	Car siding, B and better, 1"x4" and 6"x9"-18'
43	Do	Car siding, B and better, 1"x4" and 6"x10"-20'
44	Do	Com. car lining, No. 1, 1" x6"x10'-20'
45	Do	Lath No. 1, 3/8"
46	Do	Mill run
47	Pine, yellow	Finish, B and better, 6" and wider
48	Do (Atlantic Coast Mills)	Flooring, B and better, heart rift, 13/16"x2 1/2"
49	Do	Flooring, B and better, sap rift, 13/16"x2 1/2"
50	Do	Flooring, B, heart rift, 13/16"x2 1/2"
51	Do	Flooring, B, sap rift, 13/16"x2 1/2"
52	Do	Flooring, B, sap flat, 13/16"x3 1/2"
53	Do	Com. boards, No. 1, S2S, 1"x10"x10'-16'
54	Do	Com. boards, No. 2, S2S, 1"x10"x10'-16'
		Plank and dimensions:
55	Do Merch. grade (Sail)	Sizes 2"x6" to 8"x8", average 24'
56	Do	Sizes 2"x9" to 10"x10", average 24'
57	Do	Sizes 2"x12" to 12"x12", average 24'
58	Do	Sizes 2"x14" to 14"x14", average 24'
59	Do	Sizes 2"x16" to 16"x16", average 24'
60	Do	Mill run
61	Spruce (Eastern)	Merch. frames 9" and under, 24' and under
62	Do	Merch. frames 10" and 12', 24' and under
63	Do	Merch. random 10" and 12', 10' and up
64	Do	Merch. 2"x7" and under, 10' to 24'
65	Do	Merch. 2"x8" and up, 10' to 24'
66	Do	Lath, 1 1/2"
67	Do	Mill run
68	Do (Adirondack)	Mill run, mill culls out
69	Do	No. 1 and clear
70	Do	No. 2
71	Do	No. 3
72	Do	Mill culls
73	Do	Mill run
74	Do (West Virginia)	Merch. frames 3"x4" to 8"x8", 10'-16'
75	Do	Merch. frames 2"x12" to 12"x12", 10'-16'
76	Do	Boards, merch., 1"x12", 10'-20'
77	Do	Boards, box, 1"x4"-12"
78	Do	Mill run

	West Virginia	Maryland	Pennsylvania	New York	New Hampshire	Vermont	Connecticut	Massachusetts	Maine	Minnesota	Wisconsin	Michigan	
1											14.26	14.41	1
2											15.78	16.10	2
3											16.13	14.40	3
4											14.38	14.75	4
5											2.96	3.00	5
6											11.98	12.05	6
7	13.75		18.17										7
8	14.68	16.00	19.33					18.00	16.00				8
9	15.25	17.75	20.17										9
10	13.80	17.16	19.00						16.58				10
11	12.00	12.17	15.75	15.00									11
12	14.66		18.50	16.80		15.50			15.00				12
13	6.81		12.17	9.90									13
14	14.10		17.47	14.70		15.20			15.00				14
15													15
16													16
17													17
18													18
19													19
20													20
21													21
22													22
23	58.50									48.42	51.97		23
24									35.00	37.92	41.09		24
25	50.00									40.11	43.73		25
26	26.00									26.33	24.44		26
27	27.50									23.20	22.66		27
28						18.00			25.00	21.97	24.93		28
29	25.00		30.00					19.00	22.60	18.68	21.03	18.00	29
30	19.50								19.00	13.40	13.83		30
31	27.00									24.50	26.43		31
32										3.94	4.05	3.25	32
33				3.33						3.48	3.29	2.75	33
34			26.33	24.50	17.66	18.20	20.60	16.71	20.36	18.68	21.78	22.67	34
35													35
36													36
37													37
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54													54
55													55
56													56
57													57
58													58
59													59
60													60
61					21.91	19.30		21.87	19.08				61
62					23.44	21.60			21.19				62
63					20.90	19.50			19.51				63
64					19.48	17.75			16.95				64
65					19.73	19.50			18.48				65
66					3.44	3.37			2.92				66
67					20.21	18.45		18.83	19.56				67
68				22.50									68
69				35.31									69
70				22.44									70
71				18.62									71
72				15.81									72
73				21.77									73
74	17.83												74
75	18.50												75
76	18.79												76
77	15.68												77
78	17.62												78

SPECIES

GRADE.

1	Ash	Firsts and seconds 4/4.
2	Do.	No. 1 common 4/4.
3	Do.	No. 2 common 4/4.
4	Do.	Mill run.
5	Basswood	Firsts and seconds 4/4.
6	Do.	No. 1 common 4/4.
7	Do.	No. 2 common 4/4.
8	Do.	No. 3 common 4/4.
9	Do.	Mill run.
10	Beech	Firsts and seconds 4/4.
11	Do.	No. 1 common 4/4.
12	Do.	Mill run.
13	Birch, unselected	Firsts and seconds 4/4.
14	Do.	No. 1 common 4/4.
15	Do.	No. 2 common 4/4.
16	Do.	No. 3 common 4/4.
17	Do.	Mill run.
18	Chestnut	Firsts and seconds 4/4.
19	Do.	No. 1 common 4/4.
20	Do.	No. 2 common or S. W. 4/4.
21	Do.	No. 3 common 4/4.
22	Do.	Mill run.
23	Cottonwood	Firsts and seconds 4/4, 6" to 12"
24	Do.	Boxboards 4/4, 13" to 17"
25	Do.	No. 1 common 4/4.
26	Do.	No. 2 common 4/4.
27	Do.	Mill run.
28	Cypress	Firsts and seconds clear 4/4.
29	Do.	Selects 4/4.
30	Do.	Shop, No. 1, 4/4.
31	Do.	Beveled siding, A, 1"x6"
32	Do.	No. 1 common 4/4, random widths.
33	Do.	Peck 4/4, random widths.
34	Do.	No. 1 plastering lath, 3"x1 1/2"-4"
35	Do.	Mill run.
36	Cypress, shingles.	Bests 5"
37	Do.	Primes 5"
38	Do.	Economy 5"
39	Elm, rock.	Firsts and seconds 8/4.
40	Do.	No. 1 common 8/4.
41	Do.	No. 3 common 8/4.
42	Do.	Mill run.
43	Elm, soft.	Firsts and seconds, 4/4.
44	Do.	No. 3 common 4/4.
45	Do.	Mill run.
46	Gum, red.	Firsts and seconds 4/4.
47	Do.	No. 1 common 4/4.
48	Do.	Mill run.
49	Gum, sap.	Firsts and seconds 4/4.
50	Do.	No. 1 common 4/4.
51	Do.	Box common.
52	Do.	Mill run.
53	Hickory	Firsts and seconds 8/4.
54	Do.	No. 1 common 8/4.
55	Do.	Mill run.
56	Maple	Firsts and seconds 4/4.
57	Do.	No. 1 common 4/4.
58	Do.	No. 2 common 4/4.
59	Do.	Mill run.
60	Oak, plain.	Firsts and seconds, 4/4.
61	Do.	No. 1 common 4/4.
62	Do.	No. 2 common 4/4.
63	Do.	No. 3 common 4/4.
64	Do.	Mill run.
65	Oak, quartered	Firsts and seconds 4/4.
66	Do.	No. 1 common 4/4.
67	Do.	No. 2 common 4/4.
68	Do.	Mill run.
69	Poplar	Firsts and seconds 4/4.
70	Do.	Saps 4/4.
71	Do.	Selects 4/4.
72	Do.	No. 1 common 4/4.
73	Do.	Mill run.
74	Tupelo (Bay Poplar)	Firsts and seconds clear, random 4/4.
75	Do.	No. 1 common, random 4/4.
76	Do.	Mill run.

	Louisiana	Mississippi	Arkansas	Missouri	Tennessee	Kentucky	Florida	Georgia	South Carolina	North Carolina	Virginia	West Virginia	Ohio	
1		37.16	35.00	36.83	40.91	38.00				37.50	38.00	42.00	40.70	1
2		21.58	21.66	23.73	25.09	22.55				26.50	26.75	28.85	27.18	2
3		11.50	10.50	12.50	13.64	13.83				13.00	12.40	14.25	16.71	3
4		29.33	22.00	25.33	22.18	25.66				17.00		22.50	29.47	4
5					32.31	28.80				32.50		37.00	30.25	5
6					21.81	20.00				23.33		27.33	22.25	6
7					14.79	14.00				16.00		14.66	16.00	7
8					9.81	9.50				9.00		10.66		8
9					20.43	20.50				21.00	21.00	21.25	20.62	9
10													16.50	10
11													13.50	11
12						13.38						11.12	15.65	12
13												26.37		13
14												17.00		14
15												10.25		15
16												7.87		16
17												14.33		17
18					37.57	37.83		33.50		38.00	34.00	37.64	41.50	18
19					25.23	25.88		22.50		27.66	24.00	27.46	29.50	19
20					13.82	13.50		13.00		12.33	11.70	13.50	15.43	20
21					8.09	7.50				8.33	8.17	8.22		21
22					16.00	18.12		14.75				15.91	19.83	22
23		25.12	24.45	26.00									31.50	23
24		39.62	41.50	40.73										24
25		18.00	19.50	18.92										25
26		15.00	14.75	14.56										26
27		19.66	21.00	22.00									20.66	27
28	34.96	33.00	33.16	34.32			36.50		36.66					28
29	31.74	28.00	28.66	29.32			30.60		32.00					29
30	18.22	18.25	19.21	19.54			21.25		21.16					30
31	20.22													31
32	16.25		14.00	12.50			15.60		18.83					32
33	5.54	10.50	7.37	8.32			9.87		9.00					33
34	2.82		2.75				2.35		2.70					34
35	21.22	21.54		15.56						18.75				35
36	3.14		3.08				4.61							36
37	2.25		2.08				3.27							37
38	1.41		1.23				1.75							38
39													18.00	39
40														40
41														41
42													16.50	42
43				29.25									27.50	43
44				15.75									18.20	44
45				14.66									19.30	45
46		24.75	22.39	23.66	26.00	22.50								46
47		15.25	12.50	13.66	16.00									47
48		15.70	11.75	15.00		12.25								48
49		15.70	14.44	15.40	17.62									49
50		12.62	11.05	12.25	13.12									50
51		10.60	8.50	9.91	10.51									51
52		12.36	13.30	11.64										52
53		50.83		44.75	53.50	47.00							40.90	53
54		24.00		23.33	28.00	27.66							27.00	54
55				31.00	30.50	24.00							28.00	55
56					22.50								20.50	56
57					14.00								13.62	57
58					9.00								9.12	58
59			14.33	15.40	11.00	15.00				13.17	13.50	13.18	17.92	59
60		36.50	35.18	35.85	38.58	36.75		32.50	36.50	37.75	35.33	38.31	39.85	60
61		20.40	21.00	22.37	24.21	23.69		22.50	23.00	25.50	24.00	27.22	27.00	61
62		10.83	10.23	12.81	13.44	13.77		12.50		12.50	12.00	15.19	17.00	62
63		7.00	5.65	7.18	7.39	8.22				8.50	8.00	8.38	11.14	63
64		23.34	20.00	19.91	18.06	21.30				17.50		21.50	27.50	64
65		60.80	56.66	68.80	66.68	63.77						67.00	67.50	65
66		31.75	33.50	43.60	40.25	39.73						40.00	42.75	66
67		14.66	15.57	25.25	20.18	21.50						21.66	23.69	67
68		40.05	39.00	50.50	46.86	41.66							42.50	68
69		40.50			51.66	44.07		43.50		49.95	46.75	48.64	49.75	69
70		33.50			35.31	34.37		35.00		35.25	32.00	35.44	37.33	70
71					36.00	32.86				32.00			40.00	71
72					28.40	26.00		29.50	29.00	28.50	26.75	31.46	31.75	72
73					29.20	22.75				23.50		27.50		73
74				12.83										74
75			14.00							11.83				75
76														76

	SPECIES	GRADE
1	Ash.....	Firsts and seconds 4/4.....
2	Do.....	No. 1 common 4/4.....
3	Do.....	No. 2 common 4/4.....
4	Do.....	Mill run.....
5	Basswood.....	Firsts and seconds 4/4.....
6	Do.....	No. 1 common 4/4.....
7	Do.....	No. 2 common 4/4.....
8	Do.....	No. 3 common 4/4.....
9	Do.....	Mill run.....
10	Beech.....	Firsts and seconds 4/4.....
11	Do.....	No. 1 common 4/4.....
12	Do.....	Mill run.....
13	Birch, unselected.....	Firsts and seconds 4/4.....
14	Do.....	No. 1 common 4/4.....
15	Do.....	No. 2 common 4/4.....
16	Do.....	No. 3 common 4/4.....
17	Do.....	Mill run.....
18	Chestnut.....	Firsts and seconds 4/4.....
19	Do.....	No. 1 common 4/4.....
20	Do.....	No. 2 common or S. W. 4/4.....
21	Do.....	No. 3 common 4/4.....
22	Do.....	Mill run.....
23	Cottonwood.....	Firsts and seconds 4/4, 6" to 12".....
24	Do.....	Boxboards 4/4, 13" to 17".....
25	Do.....	No. 1 common 4/4.....
26	Do.....	No. 2 common 4/4.....
27	Do.....	Mill run.....
28	Cypress.....	Firsts and seconds clear 4/4.....
29	Do.....	Selects 4/4.....
30	Do.....	Shop, No. 1, 4/4.....
31	Do.....	Beveled siding, A, 1"x6".....
32	Do.....	No. 1 common 4/4, random widths.....
33	Do.....	Peek 4/4, random widths.....
34	Do.....	No. 1 plastering lath, 3"x1 1/2"-4'.....
35	Do.....	Mill run.....
36	Cypress, shingles.....	Bests 5".....
37	Do.....	Primes 5".....
38	Do.....	Economy 5".....
39	Elm, rock.....	Firsts and seconds 8/4.....
40	Do.....	No. 1 common 8/4.....
41	Do.....	No. 3 common 8/4.....
42	Do.....	Mill run.....
43	Elm, soft.....	Firsts and seconds, 4/4.....
44	Do.....	No. 3 common 4/4.....
45	Do.....	Mill run.....
46	Gum, red.....	Firsts and seconds 4/4.....
47	Do.....	No. 1 common 4/4.....
48	Do.....	Mill run.....
49	Gum, sap.....	Firsts and seconds 4/4.....
50	Do.....	No. 1 common 4/4.....
51	Do.....	Box common.....
52	Do.....	Mill run.....
53	Hickory.....	Firsts and seconds 8/4.....
54	Do.....	No. 1 common 8/4.....
55	Do.....	Mill run.....
56	Maple.....	Firsts and seconds 4/4.....
57	Do.....	No. 1 common 4/4.....
58	Do.....	No. 2 common 4/4.....
59	Do.....	Mill run.....
60	Oak, plain.....	Firsts and seconds, 4/4.....
61	Do.....	No. 1 common 4/4.....
62	Do.....	No. 2 common 4/4.....
63	Do.....	No. 3 common 4/4.....
64	Do.....	Mill run.....
65	Oak, quartered.....	Firsts and seconds 4/4.....
66	Do.....	No. 1 common 4/4.....
67	Do.....	No. 2 common 4/4.....
68	Do.....	Mill run.....
69	Poplar.....	Firsts and seconds 4/4.....
70	Do.....	Saps 4/4.....
71	Do.....	Selects 4/4.....
72	Do.....	No. 1 common 4/4.....
73	Do.....	Mill run.....
74	Tupelo (Bay Poplar).....	Firsts and seconds clear, random 4/4.....
75	Do.....	No. 1 common, random 4/4.....
76	Do.....	Mill run.....

	Illinois	Indiana	Michigan	Wisconsin	Minnesota	Maryland	Pennsylvania	New York	Connecticut	Massachusetts	New Hampshire	Vermont	Maine	
1	39.00	39.28	40.25	38.60	39.00	47.50	36.80	38.40	27.00	30.00		20.00		1
2	23.87	26.00	30.33	25.10	23.00	35.00	28.50	28.40	30.00					2
3	16.62	16.90	16.33	14.00	17.00	19.00	17.00	18.75	21.00					3
4	27.80	25.66	22.10	21.41		26.00	30.00	25.00	21.86	19.00		22.00		4
5		34.00	36.71	35.81	31.66		35.66	36.00				25.00	30.00	5
6		23.43	26.30	25.09	24.17		24.33	26.80						6
7		17.33	17.37	15.23	16.00		18.00	20.00						7
8		10.50	14.16	12.67	13.66		12.66	12.50						8
9		24.33	22.40	21.53	18.50	22.33	23.33	28.25	19.66		19.00	19.33		9
10		18.66	18.40				16.00	24.43				18.33		10
11		16.00	14.75					17.90						11
12	14.16	16.33	12.24				19.25	16.31	17.16		12.00	16.40	14.00	12
13			27.12	28.36	27.66			32.70	24.00			18.00	22.00	13
14			20.00	16.36	17.83		24.33	21.66						14
15			13.71	11.13	13.71		15.66	16.16	11.50					15
16			9.43	8.59	7.83		12.00	11.66						16
17			15.29	15.75	14.50			23.05	15.60	16.00	14.00	19.00	16.66	17
18	38.00	37.50				38.66	37.50	39.00	21.50	19.33				18
19	23.00	26.00				28.00	26.25		19.66					19
20	15.00	14.50				14.00	16.12							20
21						9.00	14.00							21
22							18.67	18.50	16.00	18.00		17.00		22
23	24.60													23
24	32.33													24
25	17.33													25
26	14.83													26
27														27
28	31.66													28
29	29.25													29
30	20.00													30
31														31
32	15.50													32
33	8.75													33
34														34
35	19.26													35
36														36
37														37
38														38
39		27.50		39.75										39
40		26.66		27.75										40
41			10.00	9.70										41
42		17.50	27.13	24.00										42
43		22.60	33.50	29.00										43
44		16.75	10.94	9.62										44
45	15.75	17.62	20.75	16.88				22.50	15.00					45
46	23.00													46
47	14.50													47
48	14.37	19.25												48
49	15.50	18.33												49
50	11.33	13.00												50
51	7.66													51
52	11.06	16.75												52
53	44.66	44.00					35.00							53
54	27.28	30.45							23.33					54
55	29.92	31.29					23.60		21.66					55
56	17.50	26.29	22.94	23.50			28.88	26.22	23.57			21.00		56
57	12.50	18.60	17.50	14.50			17.50	19.20						57
58	11.12	13.00	11.09	10.42			12.00	16.00						58
59	15.62	19.17	15.38	14.68		15.33	19.44	19.50	13.00		18.50	18.50	17.50	59
60	38.50	39.66		45.66	39.66	37.66	41.50	37.00	24.00					60
61	24.05	31.78		35.00	30.50	27.66	29.50	28.25	23.16					61
62	15.19	16.35		26.40	22.00	16.00	17.50	21.75	20.38					62
63	10.75	10.77	11.33	9.66	15.00	11.33	13.25	16.25						63
64	19.30	25.64	24.62	28.43	24.50		22.09	23.83	24.22	20.40	19.50	20.00		64
65	68.20	69.86												65
66	36.00	42.15												66
67	16.00	22.21												67
68	43.33	45.33												68
69	41.60	47.18					39.60							69
70	26.50	37.77					33.67							70
71	22.50	36.75					33.00							71
72	24.75	29.00					27.00					15.00		72
73	25.33	30.00					22.53	20.00						73
74														74
75														75
76														76

42
Walter Mulford

U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

RECORD OF
WHOLESALE PRICES OF LUMBER
(PER 1,000 FEET B. M.)

Based on actual sales made F. O. B. Mill
for
EACH QUARTER OF THE CALENDAR YEAR 1910

PREFATORY NOTE

The Forest Service has two main purposes in collecting and compiling this record of f. o. b. mill prices: first, to have a continuous statistical record of such prices of the various commercial woods; and, second, to show, in contrast to market prices—which include the important items of freight charges and milling costs—just what the manufacturers of lumber receive for their product at the mill. The prices given are wholesale, based on actual sales f. o. b. mill, for delivery outside of local territory. Only a few representative grades and the mill run are included. By mill run is meant the average of all grades of lumber produced. The record is compiled by states, and is made up from reports received from approximately three thousand of the largest manufacturers scattered throughout the country. It is published quarterly.

The Forest Service wishes to acknowledge the courtesy of the manufacturers for their prompt and efficient coöperation. Their assistance has been of great value in making the record complete, accurate, and promptly available for distribution.

Note—For this issue of the record a departure has been made from the usual form of compilation. In addition to the average prices for the last quarter of the calendar year 1910 there are also reproduced the average prices of the three preceding quarters. This has been done to permit of a comparison for the four periods of the year.

SUMMARY

Lower average prices generally were reported by the manufacturers of western softwoods for October, November, and December, 1910, than for any one of the three preceding quarters. The woods affected include redwood, Douglas fir, western yellow pine, hemlock, red cedar and Sitka spruce. Prices on larch reported from Montana were on the same level as those given for earlier in the year, while a slight advance is shown in pine values in Idaho.

Manufacturers in the chief yellow pine producing states—Texas, Arkansas, Louisiana, Mississippi, Alabama, Missouri, Florida, Georgia and South Carolina—also reported generally lower prices for the last quarter over the preceding quarters. North Carolina pine values for South Carolina, North Carolina and Virginia were of about the same level range for the four quarters. Hemlock in West Virginia showed average lower prices for the last quarter, with practically no change in spruce prices. Eastern spruce and hemlock prices when compared reveal but slight changes from one quarter to another. Hemlock prices reported from the Lake States were a trifle lower for the last quarter, and a slight shading of white pine prices from the same region also is shown.

Hardwoods show a greater variation in price than the softwoods. Generally ash, birch, chestnut, gum and hard and soft maple closed higher in price than at the opening of the year. On the other hand, basswood, beech, chestnut, cypress, rock and soft elm, hickory, plain oak, quartered red and white oak and poplar remained stationary in price or showed a decline in value for the last quarter over the preceding quarters.

SPECIES

GRADE

	SPECIES	GRADE
1	Hemlock.....	2" piece stuff, S1S1E, 2"x4"-16'.
2	Do (Lake States).....	Boards, No. 1, S1S, 1"x8"-16'.
3	Do.....	Timbers, rough, 4"x4" to 8"x8"-16'.
4	Do.....	Fencing No. 1, S1S, 1"x6".....
5	Do.....	Lath No. 1, $\frac{3}{4}$ "-4'.....
6	Do.....	Mill run.....
7	Hemlock.....	8/4 merch. 4" to 12," 10' to 20'.
8	Do (Eastern and West Virginia).....	4/4 merch. 6" and 8"-16'.
9	Do.....	4/4 merch. 10" and 12"-16'.
10	Do.....	4/4 merch. boards, 6" and up, S1S, clipped, 12', 14' and 16'.
11	Do.....	4/4 boards, No. 2, 1"x4"-12", 6'-20'.
12	Do.....	Mill run, mill culls out.
13	Do.....	Mill culls.....
14	Do.....	Mill run.....
15	Pine.....	Flooring, No. 2, 1"x4"x10'-16'.
16	Do (North Carolina).....	Flooring, No. 3, 1"x4"x10'-16'.
17	Do.....	Dimension (air dried), 2"x8"-16' and under.
18	Do.....	Roofers, 1"x8" D. & M.
19	Do.....	Partition No. 1, 13/16"x3 $\frac{1}{2}$ ", 10'-16'.
20	Do.....	No. 1 edge 4/4, under 12".....
21	Do.....	Box edge 4/4, under 12".....
22	Do.....	Mill run.....
23	Pine, white.....	Selects C and better, 5/4 (M. L.)
24	Do.....	Inch finish, C Selects, 10" (M. L.)
25	Do.....	Shop No. 1, 8/4 (M. L.)
26	Do.....	Shop No. 3, 5/4 (M. L.)
27	Do.....	Beveled siding, C, 6"-16'.
28	Do.....	Boards No. 2, 1"x8"-16'.
29	Do.....	Boards No. 3, 12" 10'-20'.
30	Do.....	Boards No. 4, mixed widths, 10'-20'.
31	Do.....	Fencing No. 2, S1S, 6"-16'.
32	Do.....	Lath No. 1 (W. P.)
33	Do.....	Lath No. 1 (mixed)
34	Do.....	Mill run.
35	Pine, yellow.....	Flooring, B, V, 8, 13/16"x3 $\frac{1}{2}$ "
36	Do (Mississippi Valley Mills).....	Flooring, No. 2, D. & M., 1"x4"
37	Do.....	Flooring, No. 2, S2S and C. M., 1"x6"
38	Do.....	Flooring, B, flat, 13/16"x3 $\frac{1}{2}$ "
39	Do.....	Finish, B and better, 6" and wider.
40	Do.....	Dimension No. 1, S1S1E, 2"x8"-16'
41	Do.....	Com. boards No. 1, S2S, 1"x10"
42	Do.....	Com. boards, No. 2, S2S, 1"x8"
43	Do.....	Com. boards, No. 2, S2S, 1"x12"
44	Do.....	Timbers S1S1E, 6"x8"-16'
45	Do.....	Car siding, B and better, 1"x4" and 6"x9'-18'
46	Do.....	Com. car lining, No. 1, 1"x6"x10'-20'
47	Do.....	Lath No. 1, $\frac{3}{4}$ "
48	Do.....	Mill run.
49	Pine, yellow.....	Finish, B and better, 6" and wider.
50	Do (Atlantic Coast Mills).....	Flooring, B and better, heart rift, 13/16"x2 $\frac{1}{2}$ "
51	Do.....	Flooring, B and better, sap rift, 13/16"x2 $\frac{1}{2}$ "
52	Do.....	Flooring, B, heart rift, 13/16"x2 $\frac{1}{2}$ "
53	Do.....	Flooring, B, sap rift, 13/16"x2 $\frac{1}{2}$ "
54	Do.....	Flooring, B, sap flat, 13/16"x3 $\frac{1}{2}$ "
55	Do.....	Com. boards, No. 1, S2S, 1"x10"x10'-16'
56	Do.....	Com. boards, No. 2, S2S, 1"x10"x10'-16'
		Plank and dimensions:
57	Do Merch. grade (Sail).....	Sizes 2"x6" to 8"x8", average 24'.
58	Do.....	Sizes 2"x9" to 10"x10", average 24'.
59	Do.....	Sizes 2"x12" to 12"x12", average 24'.
60	Do.....	Sizes 2"x14" to 14"x14", average 24'.
61	Do.....	Sizes 2"x16" to 16"x16", average 24'.
62	Do.....	Mill run.
63	Spruce (Eastern).....	Merch. frames 9" and under, 24' and under.
64	Do.....	Merch. frames 10" and 12", 24' and under.
65	Do.....	Merch. random 10" and 12", 10' and up.
66	Do.....	Merch. 2"x7" and under, 10' to 24'
67	Do.....	Merch. 2"x8" and up, 10' to 24'
68	Do.....	Lath, 1 $\frac{1}{2}$ "
69	Do.....	Mill run.
70	Do (Adirondack).....	Mill run, mill culls out.
71	Do.....	No. 1 and clear.
72	Do.....	No. 2.
73	Do.....	No. 3.
74	Do.....	Mill culls.
75	Do.....	Mill run.
76	Do (West Virginia).....	Merch. frames 3"x4" to 8"x8", 10'-16'
77	Do.....	Merch. frames 2"x12" to 12"x12", 10'-16'
78	Do.....	Boards, merch., 1"x12" 10'-20'
79	Do.....	Boards, box, 1"x4"-12" 10'-20'
80	Do.....	Mill run.

	TEXAS				ARKANSAS				LOUISIANA				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
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35	27.44	27.25	27.50	26.21	27.00	27.50	27.28	27.75	27.89	27.96	27.47	26.53	35
36		9.22	9.18	9.02		9.29	9.42	9.35		9.01	8.83	8.86	36
37		9.67	9.34	8.94		10.09	9.82	10.20		9.66	9.21	9.46	37
38	18.35	17.47	17.40	17.44	19.02	17.47	17.83	17.42	17.52	17.56	17.50	16.63	38
39	22.70	21.73	20.39	20.93	23.41	22.97	23.52	21.72	22.30	22.09	22.59	20.31	39
40	12.17	11.84	11.63	11.54	12.62	11.57	10.34	11.39	11.96	11.64	11.16	11.17	40
41	13.54	12.80	12.67	12.32	14.11	13.47	13.64	13.40	13.39	12.90	12.47	12.60	41
42		9.98	10.05	9.51		10.47	10.71	10.18		10.09	9.93	9.72	42
43		10.84	10.75	10.36		10.75	11.63	10.82		10.70	10.26	10.58	43
44	12.43	12.00	12.27	11.37	13.34	12.85	13.22	13.25	12.66	13.96	13.10	11.49	44
45	20.58	19.88	18.25	17.94	21.06	19.54	18.94	18.28	20.18	19.76	18.89	18.68	45
46	14.14	13.65	13.78	13.58	14.92	14.75	14.60	13.94	13.79	15.01	13.91	14.39	46
47	1.36			1.30	1.64	1.62	1.57	1.58	1.51	1.53	1.43	1.49	47
48	13.37	13.15	12.90	12.76	13.96	14.04	13.82	13.37	13.13	13.38	13.33	13.02	48
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Line Numbers Refer to Grades Listed on Page 4.

	MISSISSIPPI				ALABAMA				MISSOURI				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June	July, Aug., Sept.	Oct., Nov., Dec.	
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34													34
35	29.20	27.63		26.25	30.00			26.00					35
36		8.33	8.07	7.98		8.96	8.50	8.44		9.80	10.70		36
37		9.63	9.32	9.14		10.00	9.46	9.48		13.08	12.48	12.24	37
38	17.55	17.36	17.16	16.84	18.10	17.43	17.30	17.47		18.30	19.25	20.12	38
39	21.09	20.06	20.58	20.10	20.41	20.54	20.37	20.49		22.63	21.15		39
40	11.94	11.30	11.25	11.36	12.67	11.78	11.44	11.83		14.00	12.94		40
41	14.75	14.82	14.23	14.53	14.73	14.33	13.64	14.52		15.41	14.28	13.59	41
42		10.24	10.23	10.06		10.46	10.27	11.38		12.91	12.16	11.50	42
43		10.70	11.12	11.38		11.65	12.29	12.21		13.83	12.88	12.19	43
44	12.83	11.87	11.30	11.50	13.13	12.00	11.06	11.75			12.75		44
45	21.89	19.80	18.64	18.60	21.63	18.40	19.42	18.50					45
46	15.05	15.88	14.57	14.63	15.17	14.61	14.80	15.75					46
47	1.47	1.49	1.51	1.55	1.50	1.43	1.50	1.61		1.71			47
48	14.20	13.62	13.55	13.36	13.88	14.06	13.62	13.52	11.68	11.63	11.35	12.75	48
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Line Numbers Refer to Grades Listed on Page 4.

	FLORIDA				GEORGIA				SOUTH CAROLINA				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct. Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct. Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct. Nov., Dec.	
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15									19.83	19.63	20.37	20.06	15
16									14.83	14.83	15.28	16.65	16
17										11.50	11.50		17
18									10.33	11.83	11.73	11.83	18
19										23.75	23.68	21.87	19
20									20.00	21.70	23.75	22.12	20
21									9.25	11.00	10.12	10.65	21
22									13.00	11.50	14.10	13.04	22
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48													48
49	22.17												49
50					42.67	46.63	39.17	41.25					50
51					32.67	33.25	28.32	28.50					51
52			40.00	38.00	40.00	40.00		38.33					52
53			30.03	30.26	31.00	29.50		30.00					53
54	19.50	19.94	19.30	18.54	19.71	19.25	17.91	18.50	20.25	20.00			54
55	16.36	16.11	15.33	16.60	18.43	15.93	13.64	15.90					55
56	11.43	13.64	10.48	12.10	11.06	10.69	10.50	10.25					56
57	13.31	12.85	11.25	11.44	12.77	12.41	12.18	9.80	15.00	14.17	14.49	14.25	57
58	14.45	13.97	12.87	12.50	14.23	13.72	13.68	11.00	15.75	14.67	14.63	14.31	58
59	17.38	16.36	15.41	14.45	17.23	17.10	15.75	14.20	18.00	16.50	15.78	15.89	59
60	21.70	18.50	18.30	16.93	20.50	20.40	19.31	16.65	20.25	19.00	19.31	19.05	60
61	24.80	24.08	23.07	23.03	25.00	24.79	22.75	19.50	25.50	22.33	22.84	23.42	61
62	13.58	14.71	14.68	14.33	13.64	13.35	11.98	12.21		14.50	14.30	15.40	62
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	NORTH CAROLINA				TENNESSEE				KENTUCKY				
	Jan. Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
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8					13.00	14.00	14.00	13.00	15.00				8
9					13.64	14.00	14.08	13.86	12.75				9
10							14.48	14.24					10
11													11
12					12.00	14.00	13.92	13.00					12
13						7.00	6.75	6.85					13
14								12.98					14
15	20.44	20.17	20.02	20.70									15
16	15.42	15.31	15.12	14.91									16
17	11.79	12.53	12.08	13.33									17
18	12.16	12.33	11.97	12.51									18
19	23.58	23.12	22.64	23.60									19
20	22.00	20.73	20.10	21.39									20
21	16.54	10.64	9.89	10.52									21
22	14.08	13.94	12.99	12.74									22
23			53.05	53.50									23
24													24
25			47.32	50.00									25
26			24.50	24.00									26
27													27
28			24.00	24.00									28
29			23.24	20.65									29
30			17.03	17.34									30
31			25.62	21.50									31
32													32
33	19.67		20.01		19.67			20.08					33
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57		14.83	12.26	12.85									57
58		15.33	13.22	13.61									58
59		17.50	15.31	15.15									59
60			17.74	18.12									60
61			19.63	21.06									61
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Line Numbers Refer to Grades Listed on Page 4.

	VIRGINIA				WEST VIRGINIA				MARYLAND				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
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7						17.60	17.20	15.05					7
8				13.62	15.67	15.33	15.40	14.71					8
9					16.50	16.69	16.58	15.75					9
10					16.08	15.33	16.83	16.41					10
11					12.07	12.72	11.55	11.50					11
12					14.20	13.72		13.25					12
13		12.00		14.25	7.50	7.50	7.10	6.67					13
14					13.93	13.78	15.35	15.69					14
15												21.25	15
16			15.25									18.50	16
17	13.50	14.00	12.44	13.64								15.50	17
18	12.25		12.67									17.00	18
19												27.00	19
20		23.50										18.00	20
21	10.63	12.11	11.50	11.77						12.00	12.17	14.00	21
22	13.31	11.87	12.46	13.59								13.00	22
23													23
24													24
25													25
26													26
27													27
28													28
29						20.75							29
30													30
31													31
32						4.38							32
33													33
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62										12.37	12.19		62
63													63
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67													67
68													68
69													69
70													70
71													71
72													72
73													73
74													74
75													75
76					19.50	17.86	17.75	17.75					76
77					21.33	20.45	19.83	20.50					77
78					21.17	20.73	20.67	21.34					78
79					14.50	14.88	16.00	13.85					79
80					16.43	17.51	17.87	17.93					80

Line Numbers Refer to Grades Listed on Page 4.

	PENNSYLVANIA				NEW YORK				NEW HAMPSHIRE				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1			17.63	18.25			18.44	19.23					1
2			18.50	19.07			18.58	19.62					2
3			19.25	18.50			17.67	18.33					3
4			19.50	19.50				18.25					4
5			3.55	3.44				3.30					5
6			17.04	17.15			16.02	17.08					6
7		18.50				18.67				17.50			7
8	17.63												8
9	18.75												9
10									17.83	16.88	17.75	17.25	10
11	13.25								16.75	15.83	16.00	16.75	11
12	18.50								11.50				12
13	9.00				17.29	16.33			15.67	16.70	16.07	14.00	13
14	17.05												14
15													15
16													16
17													17
18													18
19													19
20													20
21													21
22													22
23													23
24													24
25				55.00						30.00			25
26													26
27				27.67						12.00			27
28				23.33					20.25	23.25			28
29				21.50						24.80			29
30				17.00						20.00			30
31													31
32													32
33	23.80		27.00	24.13	23.20	21.58	22.75	23.14	16.94	17.25	15.71	16.88	33
34													34
35													35
36													36
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57													57
58													58
59													59
60													60
61													61
62													62
63									20.83	20.48	20.00	21.08	63
64									20.63	22.60	23.00	23.08	64
65									20.13	20.13	20.00	20.50	65
66									19.17	19.10	18.00	16.50	66
67									20.50	20.28		18.50	67
68									3.40	3.18	3.16	3.32	68
69									17.80	17.50	18.50	18.20	69
70						18.83		19.33					70
71						18.75	19.52	26.50					71
72						32.33	30.65	20.37					72
73						20.33	20.30	17.00					73
74						16.67	17.00	13.75					74
75						12.33	12.66	19.18					75
76						18.41	18.42						76
77													77
78													78
79													79
80													80

Line Numbers Refer to Grades Listed on Page 4.

	VERMONT				MAINE				MASSACHUSETTS				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1													1
2													2
3													3
4													4
5													5
6													6
7						18.33	18.50						7
8	16.50				16.00	16.50	16.25					17.50	8
9					17.50	19.00							9
10	17.46	16.00	17.17	15.81	16.38	17.00	16.50	15.30	14.25				10
11		14.50			14.25	15.33	14.87	13.86					11
12	16.30	15.75		15.25		16.00	15.00	15.20				16.50	12
13		11.33		10.67	10.00	12.50	12.00	9.75				10.50	13
14	17.50	15.85	16.67	15.66	15.20	15.18	17.50	15.58	15.00		17.28	17.50	14
15													15
16													16
17													17
18													18
19													19
20													20
21													21
22													22
23													23
24													24
25													25
26													26
27													27
28					23.00	20.67	21.67	22.00				25.50	28
29					24.69	22.33	24.75	19.00					29
30					19.50	19.09	18.55	18.94					30
31													31
32													32
33													33
34				20.25	18.20	18.58	19.43	18.71	16.78	17.11	18.10	17.72	34
35													35
36													36
37													37
38													38
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60													60
61													61
62		19.50		21.17	19.70	20.00	18.59	18.66	21.25				62
63				24.66	22.02	21.30	19.97	20.78					63
64				22.50	19.50	20.43	18.81	19.01					64
65	22.00		20.75	18.20	18.00	17.42	15.88	16.72					65
66	20.00			20.37	19.83	18.63	17.12	17.74					66
67						3.20	3.11	3.32					67
68						18.49	17.97	18.03					68
69	17.29	16.94	18.62	16.16	17.25				19.23		17.33	18.70	69
70			21.00										70
71	28.00	24.50	28.80	26.55									71
72	19.00	19.00	20.00	18.03									72
73			16.00	13.08									73
74			13.00	9.75									74
75													75
76													76
77													77
78													78
79													79
80													80

Line Numbers Refer to Grades Listed on Page 4.

	MINNESOTA				WISCONSIN				MICHIGAN				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1					15.59	15.73	15.68	15.50	15.28	15.38	15.57	15.22	1
2					17.21	17.16	16.82	16.41	16.42	15.95	16.09	15.83	2
3					17.26	17.27	17.02	16.62	15.86	15.40	14.79	15.21	3
4					15.21	15.21	15.18	14.97	16.03	15.61	16.29	15.65	4
5					3.14	3.14	3.24	3.14	3.39	3.49	3.34	3.22	5
6					12.54	12.00	11.68	12.77	12.93	12.60	12.29	12.21	6
7													7
8													8
9													9
10													10
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19													19
20													20
21													21
22													22
23	54.58	52.59	53.00	54.81	56.92	56.50	56.41	55.80	55.72	55.25			23
24	46.00	44.87	47.29	47.35	46.65	46.65	48.38	46.93	46.82	51.00			24
25	46.65	43.91	44.00	47.04	48.90	49.68	47.23	46.54	47.25	49.50			25
26	25.66	25.92	25.80	25.77	27.00	26.62	26.50	25.12	28.50	26.80	28.50		26
27	24.58	25.66	25.41	25.71	25.44	26.12	26.27	27.28	25.50	25.50	24.50		27
28	23.92	22.75	23.04	23.13	24.97	24.30	24.50	24.67	26.50	27.00	27.90	27.25	28
29	19.86	20.37	20.10	19.97	21.71	21.25	20.97	20.38	22.64	22.90	22.75	23.25	29
30	11.72	12.75	13.04	12.09	12.90	12.34	12.63	12.39	15.50	13.63	13.87	13.00	30
31	26.00	25.55	24.84	24.83	27.50	26.78	26.50	26.26	29.75	30.17	29.50	29.00	31
32	4.32	3.91	3.97	4.00	4.26	4.15	4.03	3.92		3.60	3.93	4.06	32
33	3.44	3.48	3.32	3.37	3.60	3.28	3.44	3.24		3.30	3.17	3.45	33
34	17.68	18.39	18.36	18.29	21.03	19.38	20.42	19.91	22.36	24.23	22.66	22.18	34
35													35
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SPECIES

GRADE

1	Cedar, Western Red.....	Beveled Siding No. 1, $\frac{1}{2}$ "x6"
2	Do.....	Shop No. 2, 1" and $1\frac{1}{2}$ "x8"
3	Do.....	Shingles, Perfection, 18"
4	Do.....	Shingles, Extra Clear, 5/2"-16"
5	Do.....	Star-A-Star, 6/2"-16"
6	Do.....	Mill run.....
7	Fir, Douglas.....	Flooring No. 1, v. g., 1"x4"
8	Do.....	Flooring No. 2, v. g., 1"x4"
9	Do.....	Flooring No. 2, flat, 1"x4"
10	Do.....	Finish No. 2 and better, 6" and 8"
11	Do.....	Drop Siding, No. 2 slash.....
12	Do.....	Dimension, Com., SISE, 2"x12"-16'
13	Do.....	Car sills, 5"x8"-36'
14	Do.....	Timbers, 12"x12", average 32'
15	Do.....	Cross-ties, 7"x9"
16	Do.....	Lath, per M.....
17	Do.....	Mill run.....
18	Fir, White.....	Common boards, 6" and 8"
19	Do.....	Lath, per M.....
20	Do.....	Mill run.....
21	Hemlock, Western.....	Flooring, Nos. 1 and 2, v. g., 1"x4"
22	Do.....	Finish, Nos. 1 and 2, 5" and wider.....
23	Do.....	Dimension, No. 1 Com., 2"x4" to 2"x8"
24	Do.....	Shiplap, 1"
25	Do.....	Shop No. 1, $1\frac{1}{2}$ "x8" and wider.....
26	Do.....	Mill run.....
27	Larch, Western.....	Flooring, A and B (Nos. 1 and 2 clear), 1"x4"
28	Do.....	Finish, A and B (Nos. 1 and 2 clear), 1"x8"
29	Do.....	Drop siding, A and B (Nos. 1 and 2 clear), 1"x6"
30	Do.....	Common boards, No. 2, 1"x8"-16'
31	Do.....	Dimension, No. 1 Com., 2"x8"-16'
32	Do.....	Lath, per M.....
33	Do.....	Mill run.....
34	Pine, Sugar.....	Firsts and seconds, clear.....
35	Do.....	Shop No. 1, 2"x8" and wider.....
36	Do.....	Shop No. 2, 2"x8" and wider.....
37	Do.....	Mill run.....
38	Pine, Western White.....	Finish, C select, 8"
39	Do (Idaho White).....	Finish, D select, 8"
40	Do.....	Beveled siding, B and better, 4" and 6"
41	Do.....	Beveled siding, C, 4" and 6"
42	Do.....	Common boards, No. 2, 6" and 8"
43	Do.....	Mill run.....
44	Pine, Western Yellow.....	Flooring, B and better (Nos. 1 and 2 clear), 4" and 6"-16'
45	Do (Including Western Pine, California White Pine, New Mexico White Pine).....	Finish, B select and better, 1"x10"-16'
46	Do.....	Finish, C select, 8"
47	Do.....	Beveled siding, B and better, 4" and 6"
48	Do.....	Beveled siding, C, 4" and 6"
49	Do.....	Shop No. 1, 6/4.....
50	Do.....	Shop No. 2, 6/4.....
51	Do.....	Common boards, No. 2, 1"x8"-16'
52	Do.....	Dimension, No. 1 Com., 2"x8"-16'
53	Do.....	Lath No. 1, per M.....
54	Do.....	Mill run.....
55	Redwood.....	Clear, 6" to 12", 10' to 20'
56	Do.....	Sappy clear, 6" to 8", 10' to 20'
57	Do.....	Common boards No. 1.....
58	Do.....	Common boards No. 2.....
59	Do.....	Cross-ties, 6"x8"-8"
60	Do.....	Shingles No. 1, per M.....
61	Do.....	Shingles No. 2, per M.....
62	Do.....	Mill run.....
63	Spruce, Sitka.....	Shop No. 1, 6/4.....
64	Do (Western Spruce).....	Finish No. 2, clear and better, 1"x12"
65	Do.....	Flooring No. 2, clear and better, 1"x4"
66	Do.....	Beveled Siding, B, $\frac{1}{2}$ "x6".....
67	Do.....	Common Boards, 1"x12"
68	Do.....	Mill run.....

Line Numbers Refer to Grades Listed on Page 13.

	CALIFORNIA				OREGON				WASHINGTON				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1							20.90		21.59	21.22	18.90	17.03	1
2										14.25	13.50		2
3										2.75	2.70	2.38	3
4									2.17	2.10	2.02	1.98	4
5					1.97				1.78	1.73	1.58	1.53	5
6						15.33	14.07		15.89	14.87		13.70	6
7					29.31	28.17			27.65	27.63	26.70	25.20	7
8					26.77	25.16	24.19	24.37	24.60	24.54	23.69	22.44	8
9					19.41	18.24	18.71	17.83	16.80	16.71	15.41	14.85	9
10					25.42	24.90	25.27	23.86	24.30	24.45	22.67	21.64	10
11					21.09	20.28	20.08	19.34	18.85	18.84	17.70	16.56	11
12	13.25	14.40		11.50	10.59	11.10	10.56	10.19	9.92	10.05	9.37	8.57	12
13					17.44	17.70	16.78	16.07	15.19	14.57	14.13	11.82	13
14					11.55	10.93	10.95	10.42	11.51	11.27	10.33	9.57	14
15					10.93	10.59	10.16	9.30	10.03	10.50	9.63	8.85	15
16		2.32			1.87	1.80	1.76	1.59	1.69	1.62	1.49	1.34	16
17					12.61	11.94	11.96	11.58	13.26	13.40	13.56	11.59	17
18	13.15	11.68	12.47	13.29				9.33	9.28	9.50	9.58	7.87	18
19													19
20											12.25		20
21									19.42	20.50	23.70	20.60	21
22									22.70	24.67	21.83	21.71	22
23							11.75		9.50	8.61	8.54	7.63	23
24							13.00	9.50	10.02	9.94	9.29	8.20	24
25									16.00		14.67	13.50	25
26							10.67		10.38	12.33	10.38	9.04	26
27													27
28													28
29													29
30									10.00	11.00			30
31										2.37			31
32									10.40	12.50			32
33													33
34	51.83	52.65	55.10	54.37			45.00	47.50					34
35	33.77	34.65	34.13	34.20			29.75	27.00					35
36	25.22	28.06	23.49	22.89			18.25	19.32					36
37		20.00											37
38													38
39													39
40													40
41													41
42													42
43													43
44		44.38	44.05	43.95			39.50						44
45		45.93	43.20	44.14			44.88	37.83				38.33	45
46			35.25	41.20			35.37	30.35	30.33	30.50	33.60	30.25	46
47							21.50	21.00	21.00	22.37	21.00	20.97	47
48								18.50	18.50			17.97	48
49	27.03	32.17	28.33	29.85			26.75	25.21		25.88	28.37	24.35	49
50	19.06		21.89	21.87			19.00	17.35	17.32	17.87	20.88	17.25	50
51		15.55	15.08	14.69			16.05	14.91	14.31	14.95	15.10	13.62	51
52		16.13	14.30	13.81			12.63	11.25	11.34	11.58	11.40	10.73	52
53							3.30	3.02	2.92	2.86	2.91	3.03	53
54			23.00	22.75					16.17	13.00	13.50	14.65	54
55	25.71	25.25	24.28	24.47									55
56	21.43	21.28	20.90	19.53									56
57	12.21	12.57	11.69	11.47									57
58	9.50	8.95	8.00	8.22									58
59	13.67	12.75	12.50	10.75									59
60	1.56	1.58	1.40	1.47									60
61	1.17	1.04	1.05	.98									61
62	16.72	14.38	15.43	14.62									62
63					20.83		21.08	19.22	19.90	20.40	19.18	18.79	63
64					30.00	29.50	29.10	28.50	31.32	32.94	30.42	31.62	64
65									30.00	31.00	30.83	28.34	65
66					16.75			18.17	18.69	18.71	17.50	16.58	66
67					13.50	9.83	10.25	11.64	11.93	11.21	10.83	9.94	67
68						13.00	9.50	13.25	15.92	14.60	16.17	15.63	68

	IDAHO				MONTANA				COLORADO				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1	18.50												1
2													2
3													3
4													4
5													5
6	10.79	10.30	10.08	10.23									6
7													7
8													8
9													9
10													10
11													11
12		11.75						14.87					12
13													13
14													14
15													15
16													16
17					13.20								17
18		12.50	10.67	12.67	13.50								18
19													19
20	12.13	11.48	12.25										20
21													21
22													22
23													23
24													24
25													25
26													26
27	20.33	24.33	22.50	23.69	23.06	24.64	23.84	22.76					27
28	21.40	21.50	23.50	21.56	26.39	28.18	27.14	26.55					28
29	19.33	19.50	25.75	21.37	23.91	25.11	23.65	23.71					29
30	12.13	12.18	11.85	11.24	16.00	17.14	16.17	15.83					30
31	10.25	11.30	9.85	10.58	13.04	13.61	13.27	12.25					31
32	1.63	1.40	1.25	1.43	2.04	2.20	2.24	2.07					32
33	11.25	11.91	12.25	10.87	13.02	15.35	14.87	14.36					33
34													34
35													35
36													36
37													37
38	35.75	35.50	37.33	36.50									38
39	27.25	28.10	27.34	29.65									39
40	26.00	24.00	25.50	25.83									40
41	22.33	20.25	22.17	23.00									41
42	17.56	17.58	15.94	17.21									42
43	18.83	20.38	18.25	16.03									43
44	39.25	38.50	36.75	41.40	33.20	39.83					31.25	31.62	44
45	47.50	50.17	43.04	47.83	43.44	45.77		41.75			40.10	35.75	45
46	32.67	33.63	32.37	33.21	33.78	38.20		31.92			33.50		46
47	24.00	22.50	23.10	24.75	23.25	25.52		22.50			28.34		47
48	21.00	20.25	20.90	21.83	19.89	22.67		19.25					48
49	25.56	28.67	25.70	26.61	24.13	27.83		23.75					49
50	17.39	19.00	18.78	18.94	17.75	20.25		18.25					50
51	14.15	15.50	13.55	14.94	16.67	17.71	16.92	15.83	14.00	14.25	12.70	11.00	51
52	11.56	12.67	11.42	13.00	13.45	14.20	14.32	12.02	13.23	14.25	13.85	12.67	52
53	3.04	2.78	2.87	2.91	3.28	3.63	4.00	3.42	4.25	3.83	3.56	3.77	53
54	14.70	14.34	15.94	14.48	17.50	17.90	17.10	15.05	13.64	13.60	14.25	12.66	54
55													55
56													56
57													57
58													58
59													59
60													60
61													61
62													62
63													63
64													64
65													65
66													66
67													67
68													68

SPECIES

GRADE

1	Ash.....	Firsts and seconds 4/4.....
2	Do.....	No. 1 common 4/4.....
3	Do.....	No. 2 common and better, 4/4 or log run.....
4	Do.....	Mill run.....
5	Basswood.....	Firsts and seconds 4/4.....
6	Do.....	No. 1 common 4/4.....
7	Do.....	No. 2 common 4/4.....
8	Do.....	Log run.....
9	Do.....	Mill run.....
10	Beech.....	Firsts and seconds 4/4.....
11	Do.....	No. 1 common 4/4.....
12	Do.....	Mill run.....
13	Birch, unselected.....	Firsts and seconds 4/4.....
14	Do.....	No. 1 common 4/4.....
15	Do.....	No. 2 common 4/4.....
16	Do.....	No. 2 common and better, 4/4 or log run.....
17	Do.....	Mill run.....
18	Chestnut.....	Firsts and seconds 4/4.....
19	Do.....	No. 1 common 4/4.....
20	Do.....	No. 2 common and S. W. 4/4.....
21	Do.....	No. 3 common 4/4.....
22	Do.....	Mill run.....
23	Cottonwood.....	Firsts and seconds 4/4, 6" to 12".....
24	Do.....	Boxboards 4/4, 13" to 17".....
25	Do.....	No. 1 common 4/4.....
26	Do.....	No. 2 common 4/4.....
27	Do.....	Mill run.....
28	Cypress.....	Firsts and seconds clear 4/4.....
29	Do.....	Selects 4/4.....
30	Do.....	Shop, No. 1, 4/4.....
31	Do.....	No. 1 common 4/4, random widths.....
32	Do.....	No. 2 common 4/4, random widths.....
33	Do.....	Mill run.....
34	Cypress, shingles.....	Bests 5".....
35	Do.....	Primes 5".....
36	Elm, rock.....	Firsts and seconds 8/4.....
37	Do.....	No. 1 common and better 8/4.....
38	Do.....	No. 2 common and better 8/4.....
39	Do.....	Mill run.....
40	Elm, soft.....	No. 1 common and better 4/4.....
41	Do.....	No. 2 common and better 4/4.....
42	Do.....	Mill run.....
43	Gum.....	Firsts and seconds 4/4, red.....
44	Do.....	No. 1 common 4/4, red.....
45	Do.....	Firsts and seconds 4/4, sap.....
46	Do.....	No. 1 common 4/4, sap.....
47	Do.....	No. 2 common 4/4.....
48	Do.....	Mill run.....
49	Hickory.....	Firsts and seconds 8/4.....
50	Do.....	No. 1 common 8/4.....
51	Do.....	No. 2 common 8/4.....
52	Do.....	Mill run.....
53	Maple, hard.....	Firsts and seconds 4/4.....
54	Do.....	No. 1 common 4/4.....
55	Do.....	Mill run.....
56	Maple, soft.....	No. 1 common and better 4/4.....
57	Do.....	No. 3 common 4/4.....
58	Do.....	Log run.....
59	Do.....	Mill run.....
60	Oak, plain.....	Firsts and seconds 4/4.....
61	Do.....	No. 1 common 4/4.....
62	Do.....	No. 2 common 4/4.....
63	Do.....	No. 3 common 4/4.....
64	Do.....	Mill run.....
65	Oak, red, quartered.....	Firsts and seconds 4/4.....
66	Do.....	No. 1 common 4/4.....
67	Do.....	No. 2 common 4/4.....
68	Do.....	Mill run.....
69	Oak, white, quartered.....	Firsts and seconds 4/4.....
70	Do.....	No. 1 common 4/4.....
71	Do.....	No. 2 common 4/4.....
72	Do.....	Mill run.....
73	Poplar.....	Firsts and seconds 4/4.....
74	Do.....	Saps or selects 4/4.....
75	Do.....	No. 1 common 4/4.....
76	Do.....	No. 2 common 4/4.....
77	Do.....	Mill run.....
78	Tupelo (Bay Poplar).....	Firsts and seconds clear, random 4/4.....
79	Do.....	No. 1 common, random 4/4.....
80	Do.....	Mill run.....

Line Numbers Refer to Grades Listed on Page 16.

	ARKANSAS				LOUISIANA				MISSISSIPPI				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan. Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1	37.00	36.18	37.25	37.18	35.63	34.09	35.20	37.08	36.80	36.33	35.34	36.67	1
2	21.14	19.92	20.62	20.03	21.83	21.33	20.40	20.92	22.00	23.33	21.83	23.65	2
3		13.85	9.34	10.25		11.50	9.40	10.50		11.00		10.60	3
4	21.92	22.00		22.67		20.57			20.50				4
5													5
6													6
7													7
8													8
9													9
10													10
11													11
12													12
13													13
14													14
15													15
16													16
17													17
18													18
19													19
20													20
21													21
22													22
23	24.21	24.89	23.60	24.13	24.00	23.80	23.34	22.35	25.33	24.70	23.75	24.00	23
24	43.28	43.09	46.36	47.14	40.80	40.60		46.50	43.25	45.20	40.40	44.65	24
25	18.34	17.83	18.21	18.00	16.67	16.40	16.33	15.68	16.61	17.50	17.50	16.93	25
26	12.30	13.44	13.17	13.08	11.92	11.50	10.00	11.00	12.39	12.29	12.80	12.00	26
27	18.50	19.67		17.50					21.35		20.50	20.00	27
28	34.00	35.00	33.00	33.20	35.70	35.83	35.63	35.97	35.86	33.67	33.50	33.00	28
29	29.45	29.90	29.40	29.19	31.63	31.25	31.24	31.08	30.50	29.67	30.00	30.00	29
30	19.70	19.65	19.00	19.17	19.68	19.36	19.47	18.98	21.00	20.33	20.50	19.81	30
31	13.11	14.73	15.10	13.08	15.66	15.66	15.52	14.80		13.50	16.03	16.08	31
32	9.61	9.03	9.90	8.69	8.92	8.66		8.10		10.50		10.03	32
33	18.00	22.00		19.60	20.41	21.85	21.50	21.09					33
34	3.12	3.03	3.55	3.47	3.39	3.55	3.35	3.28					34
35	2.35	2.53	2.33	2.37	2.71	2.58	2.61	2.56					35
36													36
37													37
38													38
39													39
40	18.00	19.63		17.80									40
41		15.13	16.00	13.50								15.75	41
42	14.62	15.40	14.40	14.00			16.00		16.63	16.00		14.75	42
43	25.10	25.27	26.19	26.04				27.00	26.33	27.10	27.43	27.00	43
44	14.59	15.64	15.60	15.34				15.70	15.94	15.90	15.85	16.21	44
45	15.86	15.53	15.60	15.15	13.33	12.33		14.75	15.69	15.50	16.00	15.79	45
46	11.17	11.28	11.03	10.84	8.88	8.67		10.00	12.06	11.55	11.69	11.46	46
47	9.36	8.92	8.92	8.18	6.50	5.67	7.00	6.35	9.81	9.25	9.21	8.82	47
48	12.25	11.75	11.69	10.84	10.00						13.65	11.50	48
49		44.25		43.60									49
50		25.50		22.60									50
51		10.00		7.20									51
52													52
53													53
54													54
55													55
56		5.00											56
57		15.13		16.00									57
58		14.50		13.34									58
59				39.05									59
60	38.40	37.00	37.05	39.35		35.41	37.31	38.50	38.25	38.31	38.88	37.64	60
61	20.94	20.83	21.20	21.25	21.33	20.75	20.67	22.89	21.63	22.44	22.44	21.35	61
62	10.94	10.05	10.44	10.84	10.68	10.25	10.32	11.29	10.41	10.71	11.56	11.42	62
63	5.61	5.65	5.45	4.77		7.50		5.33	6.00	5.25	6.42	5.94	63
64	18.66	22.67		17.42			22.50	22.50	23.42	20.55	21.20	22.90	64
65	50.22	48.00	47.62	50.46					49.77	51.00	49.75	48.92	65
66	29.78	30.92	28.25	27.22					28.82	30.40	28.38	28.75	66
67		15.67	15.67	15.60					14.82	15.50	15.31	14.73	67
68		28.67		26.00					31.40	31.40		30.00	68
69	71.08	66.56	65.53	67.65		60.00		69.00	68.73	69.00	68.62	67.17	69
70	41.08	38.21	39.59	39.00		37.33		37.75	40.09	40.16	39.25	38.50	70
71	19.20	19.25	20.60	20.54	20.00	19.33		19.50	18.80	18.17	19.50	19.77	71
72		43.75								41.00		36.86	72
73										44.10	45.50	44.13	73
74										32.00	33.00	32.87	74
75										23.50	24.37	24.00	75
76										13.83	13.75	11.19	76
77										28.00	25.45		77
78					19.77	18.85	18.25	17.82				15.87	78
79					12.31	13.29	13.20	13.20				11.90	79
80					12.24			12.18				12.00	80

Line Numbers Refer to Grades Listed on Page 16.

	ALABAMA				MISSOURI				TEXAS				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1	33.50		33.50		36.50	37.88	41.41	38.14	37.50	36.50	38.25	39.62	1
2	20.75		22.17	24.08	22.63	22.75	24.03	23.34	22.50	20.00	22.50	23.60	2
3			14.32			14.10				10.00	10.25	12.49	3
4						20.25							4
5													5
6													6
7													7
8													8
9													9
10													10
11													11
12													12
13													13
14													14
15													15
16													16
17													17
18				40.00									18
19				28.25									19
20				13.00									20
21				7.25									21
22													22
23							30.50	31.34					23
24							49.00	46.00					24
25							23.03	19.30					25
26								14.32					26
27													27
28	32.00	31.73			34.00	32.75						33.50	28
29	28.50	28.22			27.80	24.25						29.50	29
30	21.00	20.19			19.60	20.50	19.50					18.00	30
31					13.34	13.75							31
32	10.00	9.67			10.00	10.25							32
33													33
34													34
35													35
36													36
37													37
38													38
39													39
40					15.00								40
41													41
42						17.00		16.00					42
43					25.36	25.67	24.50	28.25					43
44					14.07	14.67	15.32	17.50	14.50	14.50	14.75	15.15	44
45					14.14	14.33	16.44	17.25	16.00	14.33	15.00	15.75	45
46					12.64	10.33	12.06	13.25	10.35	11.17	12.50	12.25	46
47					10.21	9.83	7.83	10.17		8.17	9.75		47
48					11.80	11.00	11.92	11.93				10.62	48
49		48.33				40.00							49
50		28.33											50
51													51
52													52
53													53
54													54
55													55
56													56
57													57
58						16.00		15.00					58
59					15.25	13.50	15.38	12.00					59
60	33.65		34.82	38.35	34.11	38.83	35.50	40.50			38.35	40.50	60
61	21.35		23.17	23.84	20.56	21.80	19.43	24.32	22.75	22.67	22.84	23.50	61
62	11.00		11.08	12.00	10.00	13.40	10.50	13.25	11.50	10.67	12.00	13.00	62
63	7.10		7.45	7.00	6.50	6.17	6.50	7.25					63
64	21.00					14.80		13.45					64
65				50.35									65
66				29.67							32.50		66
67				15.75							19.00		67
68						27.67							68
69	63.50	67.50	71.25	67.68		64.68							69
70	36.49	37.50	39.55	38.31		35.50					39.50		70
71	16.25	17.50	17.73	18.23		16.50					21.00		71
72													72
73	43.72	47.33	48.67	44.75									73
74	31.38	33.67	35.38	33.00									74
75		25.00	25.72	24.00									75
76		13.83	14.19	13.35									76
77													77
78													78
79													79
80													80

	FLORIDA				SOUTH CAROLINA				NORTH CAROLINA				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1						37.60		38.90	40.00	38.00	38.83	40.00	1
2						19.00			26.50	24.50	26.84	29.00	2
3										12.00	12.48	12.50	3
4									16.60	15.40	15.56		4
5									32.00	32.67	33.31		5
6									22.00	24.33	24.35		6
7									14.33	14.17	13.68		7
8										18.84			8
9									18.70	18.00	20.00		9
10													10
11													11
12											14.66		12
13													13
14													14
15													15
16													16
17													17
18									39.70	40.37	40.29	38.00	18
19									27.72	27.72	29.43	27.29	19
20									11.79	12.10	11.77	11.85	20
21									6.66	7.20	6.65	6.90	21
22													22
23													23
24													24
25													25
26													26
27													27
28	36.00	36.63	35.62	35.83	32.50	35.38		34.75					28
29	31.80	30.63	31.31	31.50		32.13		29.12					29
30	22.00	21.21	21.44	20.50	21.00	22.63		21.17					30
31	17.60	17.60	16.50	16.91	15.00	18.25		14.50					31
32	11.25	11.60	11.16	11.00		12.88		10.50					32
33									18.25	18.59	16.15	14.82	33
34		3.56	3.64	3.67									34
35		2.29	2.32	2.17									35
36													36
37													37
38													38
39													39
40													40
41													41
42													42
43													43
44													44
45													45
46													46
47													47
48													48
49													49
50													50
51													51
52													52
53													53
54											16.50		54
55													55
56													56
57													57
58									14.25				58
59													59
60									36.59	38.65	39.57	37.71	60
61									26.29	26.35	26.56	27.78	61
62									13.57	13.53	13.78	14.64	62
63									7.00	7.74	7.40	7.00	63
64									16.10		17.03	14.87	64
65												53.30	65
66												36.00	66
67												19.00	67
68													68
69													69
70													70
71													71
72													72
73									47.29	50.65	51.50	50.00	73
74									34.58	36.34	37.50	36.83	74
75									28.14	27.85	29.82	30.00	75
76										19.44	16.60	15.20	76
77													77
78													78
79													79
80									11.75	12.00		11.38	80

	TENNESSEE				KENTUCKY				VIRGINIA				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1	36.56	38.21	39.07	35.73	38.20	37.20	38.09	37.81		40.50	36.00	36.12	1
2	22.63	23.40	24.21	23.40	25.00	22.80	24.90	24.50		29.00	22.67	24.00	2
3		15.25	13.60	14.66		15.42	18.02	14.57		19.67		14.36	3
4	19.38	19.99	21.40	22.21	20.66	21.13	22.25	22.55				17.67	4
5	31.96	32.60	31.94	30.70	32.50	33.50	32.35				34.00	33.20	5
6	20.09	21.86	21.85	20.80	22.50	21.25	22.00				23.50	23.20	6
7	13.25	13.50	13.65	12.18		13.50	13.14				12.50	12.80	7
8		19.83	22.40	20.25		18.67	23.20	21.45		20.50	20.50	21.21	8
9	19.64	19.23	21.50	19.01			19.12	19.85				20.00	9
10		22.50	23.00				25.00						10
11		14.00	15.50				15.17						11
12		12.85		11.69		14.50	14.71	12.20				16.20	12
13													13
14													14
15		17.00											15
16		15.00											16
17		38.15	38.84	37.82	37.17	38.00	40.15	36.88		40.33	40.50	39.23	17
18	25.86	26.11	27.10	25.29	24.83	26.25	27.15	24.69			29.75	29.61	18
19	13.06	13.10	12.56	11.91	12.68	13.88	14.19	13.00	12.67	12.33	11.88	12.65	19
20	8.58	8.02	7.50	6.67		10.00	9.60	10.00	7.17		6.75	7.26	20
21	14.65	14.08		17.74			17.50	19.94		14.83		15.66	21
22		24.00		27.00			27.50						22
23		45.00	47.50	41.50			49.00						23
24		17.00	18.50	19.50			19.00						24
25		13.00	14.00	12.50			11.50						25
26				21.75				18.05					26
27													27
28													28
29													29
30													30
31													31
32													32
33													33
34													34
35													35
36													36
37													37
38													38
39													39
40													40
41		15.17	16.50	13.67			15.50						41
42		26.25	26.50	26.25		32.33	27.50						42
43		15.75	16.27	16.25		18.67	17.00						43
44		17.25	17.92	16.13		18.00	17.00						44
45		12.06	12.03	12.31		14.25	13.50						45
46		9.06		10.12		9.63	9.22						46
47	12.20	14.88	14.09	12.25		12.38		12.35					47
48		49.00	44.50	42.85	46.75	53.33	50.75	49.75					48
49		30.00	27.00	25.87	33.12	35.00	29.37	30.10					49
50		14.83	12.50	13.64	20.80	17.50	15.14	17.75					50
51		23.33	23.00	23.35		21.00	23.00	23.42					51
52			23.04	25.50			28.33						52
53			15.07	17.50			19.00						53
54		17.67	12.75	13.52		15.50	18.17	16.17					54
55													55
56													56
57													57
58		16.23		16.01		16.33	15.02	15.50					58
59	37.52	38.58	39.66	37.69	39.47	40.32	40.79	39.06	38.50	39.50	38.17	38.72	59
60	23.44	25.24	25.27	24.06	25.48	25.00	26.11	25.73	25.10	28.25	27.50	26.57	60
61	13.12	13.38	13.78	12.00	14.75	14.86	14.94	15.19	14.33	13.63	14.00	13.85	61
62	7.69	7.64	8.08	7.28	7.39	8.64	9.40	9.77		8.33	7.75	7.95	62
63	18.70	18.78	21.14	21.83	19.49	18.67	22.65	22.81	18.43	19.00		17.71	63
64	48.11	50.77	56.05	51.09		47.40	54.77	51.40				56.11	64
65	28.80	32.21	33.62	30.73		28.60	34.65	31.80	30.00				65
66	15.57	15.58	17.60	15.41		16.40	17.95	17.30					66
67		28.68	30.31	33.00									67
68	63.86	66.73	73.65	63.69	67.77	70.40	71.14	70.78				72.48	68
69	38.23	39.53	40.85	37.56	42.28	42.20	42.60	45.00				44.12	69
70	21.50	18.27	20.27	18.53	23.05	21.60	22.36	21.00				23.09	70
71		34.67	37.20	39.00	42.00	36.33		38.00					71
72	47.00	47.62	48.32	46.66	49.36	51.21	49.82	47.25	48.08	50.67	51.50	47.64	72
73	35.32	35.91	36.87	34.41	37.25	37.33	37.25	36.50	34.67	35.38	37.00	34.66	73
74	26.55	27.92	27.81	25.78	30.41	30.14	30.21	29.42	28.75	30.33	29.75	28.27	74
75		16.32	15.79	14.17		18.50	17.77	17.19		17.33	17.12	16.61	75
76	28.92	28.04	27.82	27.62	29.50	28.88	31.67	26.18					76
77													77
78													78
79													79
80													80

	WEST VIRGINIA				OHIO				INDIANA			
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.
1	41.33	42.14	43.31	42.80	44.56	43.86	42.63	41.69	40.21	38.81	41.67	40.64
2	27.86	27.86	27.20	28.46	29.21	28.88	29.57	28.00	25.39	25.80	24.50	25.07
3		17.67		19.21		16.50	19.25	21.27		18.58	17.85	18.18
4	24.83	21.62	21.94	22.80		26.50		24.12	24.25	25.00	25.75	28.57
5	35.50	35.00	36.03	35.75	36.00	31.67	30.00	29.14	32.10	32.25	32.21	31.50
6	15.33	24.25	25.22	25.14		20.00	22.67	22.00	22.38	22.25	22.86	22.07
7	17.00	15.50	17.23	14.79	17.50	17.00	15.67	14.80	15.86	14.60	14.00	15.40
8		22.71	23.34	22.77		20.67	23.13	20.57		21.00	22.00	25.33
9	22.00	19.19	18.40	19.99	22.40	20.50	21.50	21.45	23.17	22.50		21.79
10	19.50	20.00						24.75	20.75	19.92	21.33	23.00
11		13.50						18.57		17.50	17.83	16.13
12		11.75	11.59	11.65	17.17	15.80	15.90	16.75	16.00	17.42	15.62	17.35
13	30.00	30.50	33.94	35.33								
14	20.02	20.25	22.76	22.00								
15	11.60	10.00	11.02	13.25								
16		16.92	17.37	18.23								
17	16.10	16.43	15.60	15.71								
18	41.71	42.45	42.91	41.62	41.25	41.20	37.63	41.33	40.00	43.00	40.00	39.80
19	30.08	31.00	31.70	31.10	28.50	24.67	26.33	28.00	26.50	29.00	26.33	26.30
20	13.96	13.69	13.87	13.15	17.33	15.00	18.83	17.60	16.25	18.50	16.13	17.50
21	9.28	8.77	9.02	8.13			10.75					11.25
22	15.00	15.88	14.72	14.72				17.00				
23										31.00	29.32	30.80
24										50.67	45.00	44.00
25									19.67	21.00	21.65	20.83
26											15.50	13.75
27									18.00	18.00		18.50
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39							23.50	18.60				
40					22.50	27.33	25.75	21.33	22.33	22.96		21.92
41						17.33	18.00	16.33		16.56		16.96
42					20.00	19.00	16.63	17.90	19.22	17.50	18.60	19.22
43									24.50			
44									17.00			
45									13.67			
46									10.00			
47									16.67	15.83		
48					49.72	46.67	49.85	49.13	48.47	45.33	49.19	49.38
49					28.20	29.00	30.67	29.92	28.90	29.87	29.04	29.75
50							20.33	19.18		16.63	16.80	17.63
51							26.25	28.00	30.00	25.55	28.70	29.11
52	20.00	20.25	20.65	20.46	26.13	23.00	25.33	25.46		26.40	26.77	28.39
53		23.20	23.75	25.00		25.33	26.25	28.00		18.88	18.50	18.91
54		15.20	16.65	17.80			18.60	20.45		18.00		18.71
55		13.15	14.35	15.10		16.50	16.33	18.05		20.33		23.50
56	18.00	15.50	18.75	24.00	22.75			26.15	22.46	20.00		14.83
57	7.13	7.69	8.25		16.67			17.25	14.50	12.00		19.33
58	13.86	15.10	15.40	15.00				18.88		18.00	17.71	17.43
59	13.38	13.50	13.87	13.64	17.00	16.67	15.50	16.82	18.75	15.50		40.17
60	40.54	44.00	45.45	43.90	43.23	37.89	41.15	41.73	42.11	42.03	41.52	26.21
61	29.41	30.63	32.09	31.14	29.08	29.75	28.35	29.79	26.78	27.12	26.78	16.50
62	16.05	16.27	17.66	17.22	17.79	16.50	18.11	19.26	16.48	16.87	17.66	11.44
63	9.06	8.78	9.32	8.07	11.38		12.30	13.54	11.63	11.79	10.44	27.50
64		19.79	20.17	20.70		24.20	22.42	22.67	26.50	28.75	28.71	34.42
65	48.00	51.67	47.68	59.00		54.33		58.00	53.69	51.95	54.92	19.43
66	33.00	34.67	34.95	36.50		30.33		36.32	33.92	32.61	34.31	
67		18.17	19.48	20.50		20.00		21.17	18.70	18.17	18.85	
68												
69	69.40	71.20	72.60	70.75	71.38	67.50	71.06	69.59	73.00	73.28	71.09	70.24
70	46.00	43.20	43.35	44.37	43.06	48.00	45.19	46.54	43.32	44.90	43.16	41.73
71	24.33	22.30	23.30	25.00	26.30	25.50	26.25	23.79	23.06	23.72	22.64	22.53
72		39.00	35.23							25.00		
73	51.56	53.09	51.25	50.98	51.60	47.50	50.81	48.36	48.10	49.42	50.37	50.39
74	37.88	38.71	37.89	37.50	41.50	37.50	39.00	38.00	38.17	35.78	38.66	36.00
75	33.65	33.55	33.50	31.82	32.38	28.33	33.00	29.77	29.08	28.92	27.07	29.44
76		20.86	21.29	21.00			21.28	21.10		18.96	17.41	18.23
77		26.75		25.02		28.17		26.80			27.50	29.43
78												
79												
80												

	ILLINOIS				MICHIGAN				WISCONSIN				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1	35.50	39.67	38.24	37.50	36.67	38.75		39.00	36.43	37.20	35.33	35.80	1
2	23.00	27.67	24.57	24.50	26.67	27.40		28.67	27.00	25.25	22.75	24.17	2
3						26.58	25.54	24.47		24.21	23.17	22.13	3
4					22.99	23.37	21.91	20.46	21.55	21.19	18.55	17.63	4
5					35.10	36.07	36.00	36.30	35.88	35.86	33.71	33.18	5
6					25.89	26.21	26.00	25.40	25.19	24.23	23.53	22.92	6
7					17.56	17.85	16.43	16.92	14.91	14.42	13.57	14.32	7
8						25.47	25.60	24.71		22.85	23.97	21.04	8
9					24.17	23.40	21.42	19.51	22.95	22.61	20.30	19.93	9
10					24.25	21.63		23.67					10
11					17.50	16.88		18.00					11
12					13.43	13.46	13.43	13.31		10.50	13.12	13.67	12
13					33.18	31.94	32.90	34.57	32.57	33.67	33.94	33.18	13
14					21.82	20.56	20.20	21.35	18.04	19.50	19.28	19.22	14
15					13.80	12.50	12.70	13.10	10.93	11.09	10.75	11.64	15
16						21.12	20.52	21.34		19.74	20.43	19.95	16
17					18.65	17.52	17.94	18.20	17.94	17.04	16.83	17.04	17
18													18
19													19
20													20
21													21
22													22
23													23
24													24
25													25
26													26
27													27
28													28
29													29
30													30
31													31
32													32
33													33
34													34
35									32.33	34.00	33.33	34.75	35
36									22.17	25.67	26.00	23.40	36
37						28.40	29.33	29.20		26.04	23.73	22.66	37
38						23.67	22.64			26.64	22.00	19.57	38
39					25.50	28.33	28.35	27.00	25.00	26.50	24.00	23.20	39
40						25.00	23.53	23.98		24.03	19.18	18.80	40
41	15.00			15.00	22.36	20.89	20.42	18.68	17.50	17.57	16.57	15.54	41
42													42
43													43
44													44
45													45
46													46
47													47
48													48
49													49
50													50
51													51
52	17.13	31.67											52
53						26.87	27.41	28.00		24.79	24.18	24.18	53
54						20.08	21.13	21.22		16.69	16.22	16.31	54
55						17.58	17.82	18.12		15.00	15.81	14.13	55
56					22.88		25.00	23.00	20.00			18.67	56
57					9.18	8.50	9.92	9.10	7.85	7.40	7.62	7.98	57
58					20.78	16.92	16.13	18.14	15.80	15.36	15.31	15.57	58
59					18.50	14.28	14.92	15.50	13.00	14.33	15.50	13.31	59
60	37.50	41.00	39.00	38.50				42.50	45.14	45.70	45.00	43.14	60
61		25.25	26.50	24.00				29.50	33.57	33.73	32.07	32.80	61
62			14.25	14.00				20.00	20.88	22.05	20.91	19.19	62
63				8.33					9.45	10.32	9.10	9.04	63
64	22.40		19.36	19.33		20.43		25.80				25.50	64
65													65
66													66
67													67
68													68
69		73.50											69
70													70
71													71
72													72
73													73
74													74
75													75
76													76
77													77
78													78
79													79
80													80

	PENNSYLVANIA				NEW YORK				CONNECTICUT				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1		44.67	43.00	36.66		48.25	45.25	39.31			37.50		1
2		27.67	31.00	25.35		31.67	30.22	29.60					2
3		28.67	19.78	20.75		19.33		21.30					3
4		23.67	30.62	23.55	23.19	22.40		22.69	20.00	20.13	22.50	23.33	4
5						40.00		31.40					5
6					25.33	26.75		25.50					6
7						19.50		18.10					7
8				21.00		23.67		22.30					8
9	23.00			20.60	22.45	21.80	25.30	21.54			20.05	16.17	9
10				24.00		23.50		22.40					10
11						16.50		16.00					11
12	14.00	13.79	14.75	13.57	14.61	13.65		15.09					12
13		32.07			33.00	34.17	30.75	32.06					13
14		20.00			21.67	22.50	22.00	22.41					14
15					14.06	13.00		13.00					15
16								20.00					16
17	17.00			17.67	18.39	17.25	21.67	19.23	16.33		16.50	14.75	17
18	37.00		33.75	34.50		46.00		38.67					18
19	27.00	28.00	22.65	26.27		33.67		29.50					19
20	16.30	15.38	15.50	15.90		15.67		16.50					20
21		14.00		11.58									21
22	16.33	16.95	15.64	16.25	19.00	18.50		19.85	18.09		18.60	17.97	22
23													23
24													24
25													25
26													26
27													27
28													28
29													29
30								23.17					30
31								26.00					31
32								19.75					32
33					19.20	22.38							33
34													34
35													35
36													36
37													37
38													38
39													39
40													40
41													41
42													42
43													43
44													44
45													45
46													46
47													47
48													48
49				42.57									49
50				31.60									50
51				21.67									51
52	21.50			24.38					21.38	23.33	23.00	23.00	52
53		28.10		25.25		23.67		24.80					53
54		19.75		19.28		20.00		19.50					54
55		15.17	15.75	16.33		17.00	20.38	18.02			19.50	20.00	55
56	23.50			24.61	21.75	24.50							56
57				18.50									57
58	17.11			13.00	18.00								58
59		14.08		15.16	15.50	15.75	17.67	16.57	16.50	16.83	13.35	12.00	59
60	40.50		35.55	37.80	42.00								60
61	29.50		26.65	27.50									61
62	16.00	14.00	17.10	18.00									62
63	9.50		7.65	10.75									63
64	22.38	21.96	21.19	20.98	23.60	22.75		24.44	21.67	20.79	21.28	20.75	64
65													65
66													66
67													67
68													68
69				73.50									69
70				48.00									70
71													71
72													72
73													73
74													74
75													75
76													76
77													77
78				22.54									78
79													79
80													80

Line Numbers Refer to Grades Listed on Page 16.

	MASSACHUSETTS				NEW HAMPSHIRE				VERMONT				
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1										30.00		28.00	1
2												23.50	2
3										18.25		16.40	3
4	19.90	22.25	20.33	23.33	22.33	22.50			19.00		18.00	17.27	4
5									25.60	31.00			5
6									21.50	24.67			6
7									17.34	16.50			7
8										20.67		18.14	8
9				19.75		18.75			21.67	17.00		19.00	9
10												17.50	10
11												16.00	11
12	11.88	13.75	12.81	14.40		14.00	15.00	15.32	15.40	16.21		15.65	12
13									24.33	28.33		25.36	13
14											31.00	21.00	14
15										17.33	22.00	14.00	15
16											16.50	18.00	16
17	15.17	15.88	15.14	15.80	16.33	15.20	16.80	17.85	16.00	19.00		17.32	17
18													18
19													19
20													20
21		19.33	18.50	18.80	17.50	18.00	18.33						21
22													22
23													23
24													24
25													25
26													26
27													27
28													28
29													29
30													30
31													31
32													32
33													33
34													34
35													35
36													36
37													37
38													38
39												15.67	39
40													40
41													41
42										18.67		15.83	42
43													43
44													44
45													45
46													46
47													47
48													48
49													49
50													50
51													51
52													52
53										27.50		25.14	53
54										17.17		19.32	54
55			14.80	15.75		16.50	13.75	18.30		18.17	21.17	17.01	55
56									24.00				56
57													57
58													58
59	15.83	18.40	13.00		14.33		12.00						59
60													60
61													61
62													62
63													63
64	20.68	24.00	21.33	21.17	19.00	21.67	19.33	22.50				21.50	64
65													65
66													66
67													67
68													68
69													69
70													70
71													71
72													72
73													73
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75													75
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78													78
79													79
80													80

Walter Mulford

U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

RECORD OF
WHOLESALE PRICES OF LUMBER
(PER 1,000 FEET B. M.)

Based on actual sales made F. O. B. Mill
for
JANUARY, FEBRUARY AND MARCH, 1911

PREFATORY NOTE

The Forest Service has two main purposes in collecting and compiling this record of f. o. b. mill prices: first, to have a continuous statistical record of such prices of the various commercial woods; and, second, to show, in contrast to market prices—which include the important items of freight charges and selling costs—just what the manufacturers of lumber receive for their product at the mill. The prices given are wholesale, based on actual sales f. o. b. mill, for delivery outside of local territory. Only a few representative grades and the mill run are included. By mill run is meant the average of all grades of lumber produced. The record is compiled by states, and is made up from reports received from approximately five thousand of the largest manufacturers scattered throughout the country. It will be published quarterly.

The Forest Service wishes to acknowledge the courtesy of the manufacturers for their prompt and efficient coöperation. Their assistance has been of great value in making the record complete, accurate, and promptly available for distribution.

Walter Mulford

SUMMARY

Average prices reported by manufacturers in the western part of the country for January, February and March, 1911, apparently indicate better conditions in the lumber industry. Douglas fir items reported upon show prices closely approaching those given in the record for the last three months of 1910. Red cedar, hemlock, western yellow pine and Sitka spruce prices advanced slightly over those for the preceding quarter, while minor reductions are shown in western white pine and redwood values.

Yellow pine prices reported by the Mississippi Valley and Atlantic Coast mills are considerably higher for the first three months of 1911 in comparison with those printed in the record for the last quarter of 1910. White pine prices in the Lake States also advanced. Hemlock figures from eastern and West Virginia mills are a trifle lower, though the Lake States figures remain about the same as for the preceding quarter. Spruce prices reported from West Virginia mills are slightly higher in comparison, though small declines are apparent in the prices given for the eastern and Adirondack mills. North Carolina pine values show little change. Cypress prices are not of the high level of the preceding quarter.

Small changes are to be noted in hardwood prices for the first quarter of the year when compared with the record for the last quarter of 1910. Among the woods showing a tendency to advance in price are basswood, birch, chestnut, cottonwood, hard and soft maple and tupelo. Slight declines are shown generally in the prices reported on beech, rock elm, soft elm, plain oak, and red and white quartered oak, while ash, gum and hickory prices are practically unchanged.

SPECIES

GRADE

1	Cedar, Western Red	Beveled Siding No. 1, $\frac{3}{4}$ "x6"
2	Do	Shop No. 2, 1" and $1\frac{1}{4}$ "x8"
3	Do	Shingles, Perfection, 18"
4	Do	Shingles, Extra Clear, 5/2"-16"
5	Do	Star-A-Star, 6/2"-16"
6	Do	Mill run
7	Fir, Douglas	Flooring No. 1, v. g., 1"x4"
8	Do	Flooring No. 2, v. g., 1"x4"
9	Do	Flooring No. 2, flat, 1"x4"
10	Do	Finish No. 2 and better, 6" and 8"
11	Do	Drop Siding, No. 2 slash
12	Do	Dimension, Com., S1S1E, 2"x12"-16'
13	Do	Car sills, 5"x8"-36'
14	Do	Timbers, 12"x12", average 32'
15	Do	Cross-ties, 7"x9"
16	Do	Lath, per M.
17	Do	Mill run
18	Fir, White	Common boards, 6" and 8"
19	Do	Lath, per M.
20	Do	Mill run
21	Hemlock, Western	Flooring, Nos. 1 and 2, v. g., 1"x4"
22	Do	Finish, Nos. 1 and 2, 5" and wider
23	Do	Dimension, No. 1 Com., 2"x4" to 2"x8"
24	Do	Shiplap, 1"
25	Do	Shop No. 1, $1\frac{1}{4}$ "x8" and wider
26	Do	Mill run
27	Larch, Western	Flooring, A and B (Nos. 1 and 2 clear), 1"x4"
28	Do	Finish, A and B (Nos. 1 and 2 clear), 1"x8"
29	Do	Drop siding, A and B (Nos. 1 and 2 clear), 1"x6"
30	Do	Common boards, No. 2, 1"x8"-16'
31	Do	Dimension, No. 1 Com., 2"x8"-16'
32	Do	Lath, per M.
33	Do	Mill run
34	Pine, Sugar	Firsts and seconds, clear
35	Do	Shop No. 1, 2"x8" and wider
36	Do	Shop No. 2, 2"x8" and wider
37	Do	Mill run
38	Pine, Western White	Finish, C select, 8"
39	Do (Idaho White)	Finish, D select, 8"
40	Do	Beveled siding, B and better, 4" and 6"
41	Do	Beveled siding, C, 4" and 6"
42	Do	Common boards, No. 2, 6" and 8"
43	Do	Mill run
44	Pine, Western Yellow	Flooring, B and better (Nos. 1 and 2 clear), 4" and 6"-16'
45	Do (Including Western Pine, California White Pine, New Mexico White Pine)	Finish, B select and better, 1"x10"-16'
46	Do	Finish, C select, 8"
47	Do	Beveled siding, B and better, 4" and 6"
48	Do	Beveled siding, C, 4" and 6"
49	Do	Shop No. 1, 6/4
50	Do	Shop No. 2, 6/4
51	Do	Common boards, No. 2, 1"x8"-16'
52	Do	Dimension, No. 1, Com., 2"x8"-16'
53	Do	Lath No. 1, per M.
54	Do	Mill run
55	Redwood	Clear, 6" to 12", 10' to 20'
56	Do	Sappy clear, 6" to 8", 10' to 20'
57	Do	Common boards No. 1
58	Do	Common boards No. 2
59	Do	Cross-ties, 6"x8"-8"
60	Do	Shingles No. 1, per M.
61	Do	Shingles No. 2, per M.
62	Do	Mill run
63	Spruce, Sitka	Shop No. 1, 6/4
64	Do (Western Spruce)	Finish No. 2, clear and better, 1"x12"
65	Do	Flooring No. 2, clear and better, 1"x4"
66	Do	Beveled Siding, B, $\frac{3}{4}$ "x6"
67	Do	Common Boards, 1"x12"
68	Do	Mill run

	California	Oregon	Washington	Idaho	Montana	Colorado	
1		17.75	17.49				1
2			15.75				2
3			2.58				3
4			2.01				4
5			1.60				5
6							6
7		28.47	24.74				7
8		24.70	21.68				8
9		16.20	14.26				9
10		22.37	21.56				10
11		19.71	16.79				11
12		9.93	8.50				12
13		16.60	12.57				13
14		10.40	9.52				14
15		9.85	9.17				15
16		1.47	1.26				16
17		11.52	11.35				17
18		9.31	7.82	12.25			18
19							19
20				10.75			20
21			21.70				21
22			21.00				22
23			7.40				23
24			8.47				24
25			15.75				25
26			10.28				26
27					23.41		27
28					26.68		28
29					23.81		29
30				12.00	15.78		30
31					11.69		31
32					1.86		32
33			11.75		12.87		33
34							34
35							35
36							36
37							37
38				34.00			38
39				28.00			39
40				23.58			40
41				22.38			41
42				18.17			42
43				15.17			43
44	43.95	43.61	44.52	36.10	37.40		44
45		36.08	38.94	44.87	40.64		45
46			33.45	30.90	30.82		46
47			22.25	23.50	23.69		47
48			20.17	21.08	19.58	26.25	48
49	29.67	25.75	25.17	24.38	23.88		49
50	20.62	18.08	18.67	17.90	18.88		50
51		14.42	13.80	14.50	15.85	12.50	51
52		11.75	10.37	11.25	12.67	14.25	52
53			2.96	3.01	3.28	3.85	53
54				16.38	16.16	13.70	54
55	23.08						55
56	18.92						56
57	10.67						57
58	7.42						58
59	11.12						59
60	1.50						60
61	1.03						61
62	13.92						62
63		18.50	18.25				63
64		28.75	32.75				64
65			30.67				65
66		18.65	17.50				66
67		11.72	9.67				67
68			15.50				68

SPECIES

GRADE

1	Hemlock.....	2" piece stuff, S1S1E, 2"x4"-16'
2	Do (Lake States).....	Boards, No. 1, S1S, 1"x8"-16'
3	Do.....	Timbers, rough, 4"x4" to 8"x8"-16'
4	Do.....	Fencing No. 1, S1S, 1"x6"
5	Do.....	Lath No. 1, 1/2"-4'
6	Do.....	Mill run.....
7	Hemlock.....	8/4 merch. 4" to 12", 10' to 20'
8	Do (Eastern and West Virginia).....	4/4 merch. 6" and 8"-16'
9	Do.....	4/4 merch. 10" and 12"-16'
10	Do.....	4/4 merch. boards, 6" and up, S1S, clipped, 12', 14' and 16'
11	Do.....	4/4 boards, No. 2, 1"x4"-12", 6'-20'
12	Do.....	Mill run, mill culls out.....
13	Do.....	Mill culls.....
14	Do.....	Mill run.....
15	Pine.....	Flooring, No. 2, 1"x4"x10'-16'
16	Do (North Carolina).....	Flooring, No. 3, 1"x4"x10'-16'
17	Do.....	Dimension (air dried), 2"x8"-16' and under..
18	Do.....	Roofers, 1"x8", D. & M.....
19	Do.....	Partition No. 1, 13/16"x3 1/2", 10'-16'
20	Do.....	No. 1 edge 4/4, under 12"
21	Do.....	Box edge 4/4, under 12"
22	Do.....	Mill run.....
23	Pine, white.....	Selects C and better, 5/4 (M. L.)
24	Do.....	Inch finish, C Selects, 10" (M. L.)
25	Do.....	Shop No. 1, 8/4 (M. L.)
26	Do.....	Shop No. 3, 5/4 (M. L.)
27	Do.....	Beveled siding, C, 6"-16'
28	Do.....	Boards No. 2, 1"x8"-16'
29	Do.....	Boards No. 3, 12", 10'-20'
30	Do.....	Boards No. 4, mixed widths, 10'-20'
31	Do.....	Fencing No. 2, S1S, 6"-16'
32	Do.....	Lath No. 1 (W. P.).....
33	Do.....	Lath No. 1 (mixed).....
34	Do.....	Mill run.....
35	Pine, yellow.....	Flooring, B, v. g. 13/16"x3 1/2"
36	Do (Mississippi Valley Mills).....	Flooring, No. 2, D. & M., 1"x4"
37	Do.....	Flooring, No. 2, S2S and C. M., 1"x6"
38	Do.....	Flooring, B, flat, 13/16"x3 1/2"
39	Do.....	Finish, B and better, 6" and wider.
40	Do.....	Dimension No. 1, S1S1E, 2"x8"-16'
41	Do.....	Com. boards No. 1, S2S, 1"x10"
42	Do.....	Com. boards, No. 2, S2S, 1"x8"
43	Do.....	Com. boards, No. 2, S2S, 1"x12"
44	Do.....	Timbers S1S1E, 6"x8"-16'
45	Do.....	Car siding, B and better, 1"x4" and 6"x9'-18'
46	Do.....	Com. car lining, No. 1, 1"x6"x10'-20'
47	Do.....	Lath No. 1, 1/2".....
48	Do.....	Mill run.....
49	Pine, yellow.....	Finish, B and better, 6" and wider.
50	Do (Atlantic Coast Mills).....	Flooring, B and better, heart rift, 13/16"x2 1/4"
51	Do.....	Flooring, B and better, sap rift, 13/16"x2 1/4"
52	Do.....	Flooring, B, heart rift, 13/16"x2 1/4"
53	Do.....	Flooring, B, sap rift, 13/16"x2 1/4"
54	Do.....	Flooring, B, sap flat, 13/16"x3 1/2"
55	Do.....	Com. boards, No. 1, S2S, 1"x10"x10'-16'
56	Do.....	Com. boards, No. 2, S2S, 1"x10"x10'-16'
57	Do Merch. grade (Sail).....	Plank and dimensions:
58	Do.....	Sizes 2"x6" to 8"x8", average 24'
59	Do.....	Sizes 2"x9" to 10"x10", average 24'
60	Do.....	Sizes 2"x12" to 12"x12", average 24'
61	Do.....	Sizes 2"x14" to 14"x14", average 24'
62	Do.....	Sizes 2"x16" to 16"x16", average 24'
63	Spruce (Eastern).....	Mill run.....
64	Do.....	Merch. frames 9" and under, 24' and under..
65	Do.....	Merch. frames 10" and 12", 24' and under..
66	Do.....	Merch. random 10" and 12", 10' and up..
67	Do.....	Merch. 2"x7" and under, 10' to 24'.....
68	Do.....	Merch. 2"x8" and up, 10' to 24'.....
69	Do.....	Lath, 1 1/2".....
70	Do.....	Mill run.....
71	Do (Adirondack).....	Mill run, mill culls out.....
72	Do.....	No. 1 and clear.....
73	Do.....	No. 2.....
74	Do.....	No. 3.....
75	Do.....	Mill culls.....
76	Do.....	Mill run.....
77	Do (West Virginia).....	Merch. frames 3"x4" to 8"x8", 10'-16'
78	Do.....	Merch. frames 2"x12" to 12"x12", 10'-16'
79	Do.....	Boards, merch., 1"x12", 10'-20'
80	Do.....	Boards, box, 1"x4"-12"
		Mill run.....

	Texas	Arkansas	Louisiana	Mississippi	Alabama	Missouri	Florida	Georgia	South Carolina	North Carolina	Tennessee	Kentucky	Virginia	
1														1
2														2
3														3
4														4
5														5
6														6
7														7
8											12.75	15.00		8
9											13.68	12.87		9
10											12.87			10
11														11
12														12
13														13
14														14
15														15
16									19.20	20.07				16
17									15.08	14.98			14.83	17
18									10.63	11.15			12.05	18
19									11.38	11.96			11.25	19
20									22.55	22.77			22.41	20
21									21.46	19.67			20.33	21
22									10.06	10.14			10.57	22
23									13.45	13.38			13.12	23
24														24
25														25
26														26
27														27
28														28
29														29
30														30
31														31
32														32
33														33
34														34
35	28.25	27.83	28.16	28.75	28.20						19.80	19.20		35
36	10.43	10.83	10.09	9.50	9.12	9.25								36
37	10.33	11.41	10.50	10.44	10.49									37
38	18.59	19.20	18.24	17.91	18.18									38
39	23.21	24.91	22.82	21.36	20.73	23.00								39
40	12.03	13.19	12.05	12.02	12.17	13.75								40
41	14.73	14.83	14.13	15.03	15.31	14.75								41
42	11.95	12.09	11.50	11.39	12.35	13.00								42
43	12.94	13.46	12.56	12.34	12.86	14.10								43
44	12.20	13.93	12.38	11.34	12.13									44
45	18.70	19.20	18.39	20.40	19.50									45
46	15.83	14.72	14.30	15.08	15.25									46
47	1.48	1.93	1.84	1.78	1.62									47
48	13.64	14.50	13.72	13.57	13.41	11.38								48
49							21.35							49
50								44.00						50
51								28.75						51
52								38.16						52
53								28.00						53
54							19.50	18.00						54
55							17.38	17.25						55
56							12.70	11.88						56
57							11.44	11.80	14.63					57
58							11.50	13.30	14.91					58
59							15.00	16.60	16.69					59
60							19.25	19.50	20.82					60
61							22.00	22.60	24.21					61
62							13.52	13.17	15.83					62
63														63
64														64
65														65
66														66
67														67
68														68
69														69
70														70
71														71
72														72
73														73
74														74
75														75
76														76
77														77
78														78
79														79
80														80

SPECIES

GRADE

1	Hemlock.....	2" piece stuff, SIS1E, 2"x4"-16'.....
2	Do (Lake States).....	Boards, No. 1, SIS, 1"x8"-16'.....
3	Do.....	Timbers, rough, 4"x4" to 8"x8"-16'.....
4	Do.....	Fencing No. 1, SIS, 1"x6".....
5	Do.....	Lath No. 1, 1"x4".....
6	Do.....	Mill run.....
7	Hemlock.....	8/4 merch. 4" to 12", 10' to 20'.....
8	Do (Eastern and West Virginia).....	4/4 merch. 6" and 8"-16'.....
9	Do.....	4/4 merch. 10" and 12"-16'.....
10	Do.....	4/4 merch. boards, 6" and up, SIS, clipped, 12', 14' and 16'.....
11	Do.....	4/4 boards, No. 2, 1"x4"-12", 6'-20'.....
12	Do.....	Mill run, mill culls out.....
13	Do.....	Mill culls.....
14	Do.....	Mill run.....
15	Pine.....	Flooring, No. 2, 1"x4"x10'-16'.....
16	Do (North Carolina).....	Flooring, No. 3, 1"x4"x10'-16'.....
17	Do.....	Dimension (air dried), 2"x8"-16' and under.....
18	Do.....	Roofers, 1"x8", D. & M.....
19	Do.....	Partition No. 1, 13/16"x3 1/4", 10'-16'.....
20	Do.....	No. 1 edge 4/4, under 12".....
21	Do.....	Box edge 4/4, under 12".....
22	Do.....	Mill run.....
23	Pine, white.....	Selects C and better, 5/4 (M. L.).....
24	Do.....	Inch finish, C Selects, 10" (M. L.).....
25	Do.....	Shop No. 1, 8/4 (M. L.).....
26	Do.....	Shop No. 3, 5/4 (M. L.).....
27	Do.....	Beveled siding, C, 6"-16'.....
28	Do.....	Boards No. 2, 1"x8"-16'.....
29	Do.....	Boards No. 3, 12", 10'-20'.....
30	Do.....	Boards No. 4, mixed widths, 10'-20'.....
31	Do.....	Fencing No. 2, SIS, 6"-16'.....
32	Do.....	Lath No. 1 (W. P.).....
33	Do.....	Lath No. 1 (mixed).....
34	Do.....	Mill run.....
35	Pine, yellow.....	Flooring, B, v. g., 13/16"x3 1/4".....
36	Do (Mississippi Valley Mills).....	Flooring, No. 2, D. & M., 1"x4".....
37	Do.....	Flooring, No. 2, S2S and C. M., 1"x6".....
38	Do.....	Flooring, B, flat, 13/16"x3 1/4".....
39	Do.....	Finish, B and better, 6" and wider.....
40	Do.....	Dimension No. 1, SIS1E, 2"x8"-16'.....
41	Do.....	Com. boards No. 1, S2S, 1"x10".....
42	Do.....	Com. boards, No. 2, S2S, 1"x8".....
43	Do.....	Com. boards, No. 2, S2S, 1"x12".....
44	Do.....	Timbers SIS1E, 6"x8"-16'.....
45	Do.....	Car siding, B and better, 1"x4" and 6"x9'-18'.....
46	Do.....	Com. car lining, No. 1, 1"x6"x10'-20'.....
47	Do.....	Lath No. 1, 1"x4".....
48	Do.....	Mill run.....
49	Pine, yellow.....	Finish, B and better, 6" and wider.....
50	Do (Atlantic Coast Mills).....	Flooring, B and better, heart rift, 13/16"x2 1/4".....
51	Do.....	Flooring, B and better, sap rift, 13/16"x2 1/4".....
52	Do.....	Flooring, B, heart rift, 13/16"x2 1/4".....
53	Do.....	Flooring, B, sap rift, 13/16"x2 1/4".....
54	Do.....	Flooring, B, sap flat, 13/16"x3 1/4".....
55	Do.....	Com. boards, No. 1, S2S, 1"x10"x10'-16'.....
56	Do.....	Com. boards, No. 2, S2S, 1"x10"x10'-16'.....
57	Do Merch. grade (Sail).....	Plank and dimensions: Sizes 2"x6" to 8"x8", average 24'.....
58	Do.....	Sizes 2"x9" to 10"x10", average 24'.....
59	Do.....	Sizes 2"x12" to 12"x12", average 24'.....
60	Do.....	Sizes 2"x14" to 14"x14", average 24'.....
61	Do.....	Sizes 2"x16" to 16"x16", average 24'.....
62	Do.....	Mill run.....
63	Spruce (Eastern).....	Merch. frames 9" and under, 24' and under.....
64	Do.....	Merch. frames 10" and 12", 24' and under.....
65	Do.....	Merch. random 10" and 12", 10' and up.....
66	Do.....	Merch. 2"x7" and under, 10' to 24'.....
67	Do.....	Merch. 2"x8" and up, 10' to 24'.....
68	Do.....	Lath, 1 1/2".....
69	Do.....	Mill run.....
70	Do (Adirondack).....	Mill run, mill culls out.....
71	Do.....	No. 1 and clear.....
72	Do.....	No. 2.....
73	Do.....	No. 3.....
74	Do.....	Mill culls.....
75	Do.....	Mill run.....
76	Do (West Virginia).....	Merch. frames 3"x4" to 8"x8", 10'-16'.....
77	Do.....	Merch. frames 2"x12" to 12"x12", 10'-16'.....
78	Do.....	Boards, merch., 1"x12", 10'-20'.....
79	Do.....	Boards, box, 1"x4"-12".....
80	Do.....	Mill run.....

	West Virginia	Maryland	Pennsylvania	New York	New Hampshire	Vermont	Maine	Massachusetts	Rhode Island	Connecticut	Minnesota	Wisconsin	Michigan	
1			17.50	18.10								15.15	15.17	1
2			20.50	18.21								17.39	16.30	2
3			17.62	17.43								16.21	16.15	3
4			19.75	18.00								14.88	15.36	4
5			3.50	3.53								3.33	3.46	5
6			17.75	17.72								12.37	12.16	6
7	15.80													7
8	14.64													8
9	16.02					19.25	18.00							9
10	14.88				16.75	16.33								10
11	11.38					15.33	13.50							11
12	14.81													12
13	6.33			9.33										13
14	14.83		16.62	17.03			15.12	17.47		16.54				14
15		21.87												15
16		18.75												16
17		15.75												17
18		13.20												18
19		25.50												19
20														20
21		13.25												21
22		14.25												22
23											57.73	57.15		23
24											46.83	48.58		24
25											47.95	49.37		25
26											27.35	26.43		26
27											25.84	25.99		27
28											23.81	25.24	28.51	28
29					22.50		21.67				20.60	21.26	23.30	29
30					21.00		18.87				13.19	12.61	13.16	30
31											26.88	26.86	29.13	31
32											3.96	3.87	4.15	32
33											3.47	3.48	3.66	33
34	18.81		25.22	23.11	15.90	18.60	17.50	19.15		18.08	19.20	20.51	21.13	34
35														35
36														36
37														37
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59														59
60														60
61														61
62														62
63					19.50		18.50							63
64					22.00		21.75							64
65					18.88		19.50							65
66					16.33		16.50							66
67					17.67		19.50							67
68					3.19		3.16							68
69					17.67	16.13	17.28	18.20						69
70				18.75										70
71				28.00		29.00								71
72				18.60		17.75								72
73				16.50		13.50								73
74				11.20										74
75				18.19										75
76	17.63													76
77	20.25													77
78	21.75													78
79	14.30					14.00								79
80	17.75													80

SPECIES

GRADE

1	Ash.....	Firsts and seconds 4/4.....
2	Do.....	No. 1 common 4/4.....
3	Do.....	No. 2 common and better, 4/4 or log run.....
4	Do.....	Mill run.....
5	Basswood.....	Firsts and seconds 4/4.....
6	Do.....	No. 1 common 4/4.....
7	Do.....	No. 2 common 4/4.....
8	Do.....	Log run.....
9	Do.....	Mill run.....
10	Beech.....	Firsts and seconds 4/4.....
11	Do.....	No. 1 common 4/4.....
12	Do.....	Mill run.....
13	Birch, unselected.....	Firsts and seconds 4/4.....
14	Do.....	No. 1 common 4/4.....
15	Do.....	No. 2 common 4/4.....
16	Do.....	No. 2 common and better, 4/4 or log run.....
17	Do.....	Mill run.....
18	Chestnut.....	Firsts and seconds 4/4.....
19	Do.....	No. 1 common 4/4.....
20	Do.....	No. 2 common and S. W. 4/4.....
21	Do.....	No. 3 common 4/4.....
22	Do.....	Mill run.....
23	Cottonwood.....	Firsts and seconds 4/4, 6" to 12".....
24	Do.....	Boxboards 4/4, 13" to 17".....
25	Do.....	No. 1 common 4/4.....
26	Do.....	No. 2 common 4/4.....
27	Do.....	Mill run.....
28	Cypress.....	Firsts and seconds clear 4/4.....
29	Do.....	Selects 4/4.....
30	Do.....	Shop, No. 1, 4/4.....
31	Do.....	No. 1 common 4/4, random widths.....
32	Do.....	No. 2 common 4/4, random widths.....
33	Do.....	Mill run.....
34	Cypress, shingles.....	Bests 5".....
35	Do.....	Primes 5".....
36	Elm, rock.....	Firsts and seconds 8/4.....
37	Do.....	No. 1 common and better 8/4.....
38	Do.....	No. 2 common and better 8/4.....
39	Do.....	Mill run.....
40	Elm, soft.....	No. 1 common and better 4/4.....
41	Do.....	No. 2 common and better 4/4.....
42	Do.....	Mill run.....
43	Gum.....	Firsts and seconds 4/4, red.....
44	Do.....	No. 1 common 4/4, red.....
45	Do.....	Firsts and seconds 4/4, sap.....
46	Do.....	No. 1 common 4/4, sap.....
47	Do.....	No. 2 common 4/4.....
48	Do.....	Mill run.....
49	Hickory.....	Firsts and seconds 8/4.....
50	Do.....	No. 1 common 8/4.....
51	Do.....	No. 2 common 8/4.....
52	Do.....	Mill run.....
53	Maple, hard.....	Firsts and seconds 4/4.....
54	Do.....	No. 1 common 4/4.....
55	Do.....	Mill run.....
56	Maple, soft.....	No. 1 common and better 4/4.....
57	Do.....	No. 3 common 4/4.....
58	Do.....	Log run.....
59	Do.....	Mill run.....
60	Oak, plain.....	Firsts and seconds, 4/4.....
61	Do.....	No. 1 common 4/4.....
62	Do.....	No. 2 common 4/4.....
63	Do.....	No. 3 common 4/4.....
64	Do.....	Mill run.....
65	Oak, red, quartered.....	Firsts and seconds 4/4.....
66	Do.....	No. 1 common 4/4.....
67	Do.....	No. 2 common 4/4.....
68	Do.....	Mill run.....
69	Oak, white, quartered.....	Firsts and seconds 4/4.....
70	Do.....	No. 1 common 4/4.....
71	Do.....	No. 2 common 4/4.....
72	Do.....	Mill run.....
73	Poplar.....	Firsts and seconds 4/4.....
74	Do.....	Saps or selects 4/4.....
75	Do.....	No. 1 common 4/4.....
76	Do.....	No. 2 common 4/4.....
77	Do.....	Mill run.....
78	Tupelo (Bay Poplar).....	Firsts and seconds clear, random 4/4.....
79	Do.....	No. 1 common, random 4/4.....
80	Do.....	Mill run.....

	Arkansas	Louisiana	Mississippi	Alabama	Missouri	Texas	Florida	South Carolina	North Carolina	Tennessee	Kentucky	Virginia	West Virginia	
1									38.00	35.85	37.20	38.00	41.41	1
2	34.12	35.07	35.60	36.17	36.50	39.31			26.00	23.32	24.25	24.00	27.92	2
3	19.23	19.43	20.80	23.83	21.00	23.80				11.75	15.00	12.68	21.93	3
4	10.78	10.00	11.50		15.00	13.00				22.54	21.67		23.61	4
5	21.13								33.00	31.04	31.67		35.75	5
6									23.00	21.23	21.00		25.25	6
7									12.50	12.95	12.67		16.00	7
8									21.00	20.75	20.51	19.67	22.51	8
9									18.66	19.80	17.50		19.00	9
10														10
11											13.33		11.36	11
12													31.25	12
13													21.00	13
14													10.88	14
15													18.09	15
16													15.63	16
17									41.25	38.61	39.38	41.33	43.13	17
18									29.75	26.36	29.30	29.33	31.26	18
19									11.70	11.93	11.87	11.50	13.00	19
20									7.50	6.75	7.33	6.67	8.04	20
21										19.34	19.25	15.50	15.08	21
22										24.00				22
23	24.00	24.38	25.00							47.50				23
24	46.01	45.50	48.00							19.00				24
25	17.37	15.88	17.50							15.00				25
26	12.69	11.13	13.07											26
27	16.00	21.00												27
28	32.46	34.81	33.00		32.25	33.25	36.14	34.75		35.53				28
29	28.94	30.38	29.20		29.75	30.25	31.29	31.25		30.12				29
30	19.15	18.46	18.80		18.17	18.50	20.93	22.00		19.46				30
31	12.96	14.94	13.13		14.10		16.14	15.50		14.58				31
32	9.62	8.11	8.10		10.80		11.07	12.75		8.74				32
33	18.76	21.22					22.17		19.83					33
34	3.41	3.37					4.12							34
35	2.41	2.59					3.33							35
36														36
37														37
38														38
39														39
40														40
41	14.00		15.00											41
42	15.50													42
43	28.80	29.00	27.00	27.50	29.80					26.13				43
44	16.97	17.83	17.25	17.50	17.40					18.50				44
45	15.46	15.83	15.67	17.00	16.80	16.37				16.50				45
46	11.11	11.00	11.72	12.50	12.60	11.87				13.00				46
47	8.00	7.75	8.50		9.70	9.50				11.25				47
48	11.97				11.42					11.78				48
49	43.83		44.85	45.17						46.88				49
50	23.67		22.14	27.00						27.67				50
51	11.50			13.50						11.50				51
52	26.75									18.00			22.11	52
53													26.14	53
54													17.29	54
55										16.40			14.61	55
56													22.10	56
57	6.00												7.66	57
58	15.50												15.75	58
59	14.50				14.50					15.00			15.00	59
60	38.17	38.25	38.74	38.12	38.10	41.25			39.50	37.46	39.38	39.67	42.79	60
61	21.16	21.19	21.38	24.33	22.67	24.25			26.83	24.28	25.13	28.50	30.73	61
62	11.37	10.50	10.89	11.67	11.67	13.25			14.08	13.10	14.57	12.60	17.13	62
63	5.75	5.60	4.33	8.03	6.80				7.07	6.77	7.75	6.80	8.23	63
64	20.43	19.26	22.35		13.98				17.67	20.39	18.37	16.48	21.91	64
65	48.56	46.17	50.17	50.10						52.41	51.38		49.50	65
66	28.22	27.32	29.50	29.46						31.68	32.75		33.50	66
67	15.29	14.83	15.08	15.12						17.09	18.88		18.12	67
68	25.00		30.50							28.33	28.50			68
69	67.06	66.50	67.29	71.67						62.71	67.30		74.50	69
70	38.03	38.83	37.29	40.08						38.42	41.33		45.33	70
71	20.67	19.67	17.14	19.51						18.56	22.25		23.33	71
72	41.10									34.50				72
73			47.50	48.33					51.40	49.03	47.23	48.08	51.25	73
74			35.67	32.25					36.60	35.97	35.80	36.00	38.15	74
75			25.00	25.83					29.50	27.00	27.92	27.46	34.20	75
76			14.17	14.17					16.00	15.84	16.82	17.04	20.43	76
77									27.20	28.33	27.56	25.84	26.90	77
78		18.57												78
79		13.51	12.14											79
80		12.60												80

SPECIES

GRADE

1	Ash.....	Firsts and seconds 4/4.....
2	Do.....	No. 1 common 4/4.....
3	Do.....	No. 2 common and better, 4/4 or log run.....
4	Do.....	Mill run.....
5	Basswood.....	Firsts and seconds 4/4.....
6	Do.....	No. 1 common 4/4.....
7	Do.....	No. 2 common 4/4.....
8	Do.....	Log run.....
9	Do.....	Mill run.....
10	Beech.....	Firsts and seconds 4/4.....
11	Do.....	No. 1 common 4/4.....
12	Do.....	Mill run.....
13	Birch, unselected.....	Firsts and seconds 4/4.....
14	Do.....	No. 1 common 4/4.....
15	Do.....	No. 2 common 4/4.....
16	Do.....	No. 2 common and better, 4/4 or log run.....
17	Do.....	Mill run.....
18	Chestnut.....	Firsts and seconds 4/4.....
19	Do.....	No. 1 common 4/4.....
20	Do.....	No. 2 common and S. W. 4/4.....
21	Do.....	No. 3 common 4/4.....
22	Do.....	Mill run.....
23	Cottonwood.....	Firsts and seconds 4/4, 6" to 12".....
24	Do.....	Boxboards 4/4, 13" to 17".....
25	Do.....	No. 1 common 4/4.....
26	Do.....	No. 2 common 4/4.....
27	Do.....	Mill run.....
28	Cypress.....	Firsts and seconds clear 4/4.....
29	Do.....	Selects 4/4.....
30	Do.....	Shop, No. 1, 4/4.....
31	Do.....	No. 1 common 4/4, random widths.....
32	Do.....	No. 2 common 4/4, random widths.....
33	Do.....	Mill run.....
34	Cypress, shingles.....	Bests 5".....
35	Do.....	Primes 5".....
36	Elm, rock.....	Firsts and seconds 8/4.....
37	Do.....	No. 1 common and better 8/4.....
38	Do.....	No. 2 common and better 8/4.....
39	Do.....	Mill run.....
40	Elm, soft.....	No. 1 common and better 4/4.....
41	Do.....	No. 2 common and better 4/4.....
42	Do.....	Mill run.....
43	Gum.....	Firsts and seconds 4/4, red.....
44	Do.....	No. 1 common 4/4, red.....
45	Do.....	Firsts and seconds 4/4, sap.....
46	Do.....	No. 1 common 4/4, sap.....
47	Do.....	No. 2 common 4/4.....
48	Do.....	Mill run.....
49	Hickory.....	Firsts and seconds 8/4.....
50	Do.....	No. 1 common 8/4.....
51	Do.....	No. 2 common 8/4.....
52	Do.....	Mill run.....
53	Maple, hard.....	Firsts and seconds 4/4.....
54	Do.....	No. 1 common 4/4.....
55	Do.....	Mill run.....
56	Maple, soft.....	No. 1 common and better 4/4.....
57	Do.....	No. 3 common 4/4.....
58	Do.....	Log run.....
59	Do.....	Mill run.....
60	Oak, plain.....	Firsts and seconds, 4/4.....
61	Do.....	No. 1 common 4/4.....
62	Do.....	No. 2 common 4/4.....
63	Do.....	No. 3 common 4/4.....
64	Do.....	Mill run.....
65	Oak, red, quartered.....	Firsts and seconds 4/4.....
66	Do.....	No. 1 common 4/4.....
67	Do.....	No. 2 common 4/4.....
68	Do.....	Mill run.....
69	Oak, white, quartered.....	Firsts and seconds 4/4.....
70	Do.....	No. 1 common 4/4.....
71	Do.....	No. 2 common 4/4.....
72	Do.....	Mill run.....
73	Poplar.....	Firsts and seconds 4/4.....
74	Do.....	Saps or selects 4/4.....
75	Do.....	No. 1 common 4/4.....
76	Do.....	No. 2 common 4/4.....
77	Do.....	Mill run.....
78	Tupelo (Bay Poplar).....	Firsts and seconds clear, random 4/4.....
79	Do.....	No. 1 common, random 4/4.....
80	Do.....	Mill run.....

	Ohio	Indiana	Illinois	Michigan	Wisconsin	Pennsylvania	New York	Connecticut	Massachusetts	New Hampshire	Vermont	Maine	
1	42.20	39.55			35.93	36.75	39.71						1
2	30.71	25.24			24.06	24.00	29.33						2
3	21.17	18.27		25.24	22.10	19.00	21.50						3
4	25.25	24.00		20.57	18.80	23.88	22.58	22.15	21.20		19.42		4
5	31.33	30.82		37.11	33.65		32.20				27.50		5
6	23.75	22.45		26.67	23.09		25.00				20.00		6
7	16.33	15.83		17.73	13.68		19.80						7
8	21.25	21.88		25.07	22.58	23.00	23.25				20.00		8
9	20.93	22.00		18.53	19.80	22.17	22.56	18.00	18.25		19.38		9
10		21.28		22.00		18.33	20.50						10
11	19.00	17.08		15.93		14.56	16.67						11
12	16.67	15.89		12.91	13.67	13.58	14.67		14.00	15.50	15.57		12
13				35.25	33.84		34.75				25.00		13
14				20.73	20.10		24.50						14
15				13.60	11.46		13.00						15
16				22.77	20.93								16
17				18.14	17.72	18.80	20.88	15.17	16.03	16.50	15.78		17
18	37.20					37.56	42.00						18
19	27.50					25.00		20.00					19
20	16.00					16.00	17.00						20
21	9.00					12.50							21
22	17.50					16.50	18.00	18.13	18.43				22
23													23
24													24
25													25
26													26
27													27
28													28
29													29
30													30
31													31
32													32
33													33
34													34
35													35
36					32.00								36
37					23.62								37
38				25.50	22.54								38
39	18.50				20.33								39
40	22.13	21.21			23.58								40
41	16.33	17.50		23.20	19.63								41
42	17.83	18.57	14.50	17.77	18.32		19.50						42
43													43
44													44
45													45
46													46
47													47
48													48
49	50.91	46.64				45.00							49
50	28.75	28.87											50
51	21.66	18.17											51
52	27.40	27.94				24.40		21.00					52
53	27.00	25.93		28.74	24.79	22.38	24.56				26.75		53
54	20.25	19.73		20.95	17.37	15.42	17.33						54
55	19.00	18.29		19.09	14.88	16.80	19.50	20.00	17.50	17.00	17.35		55
56	18.83	20.42			17.83	23.00							56
57		14.00		7.58	7.69								57
58		18.75		17.84	16.18	17.25							58
59	17.17	18.75		16.25	14.93	16.75		12.79	13.04	13.14			59
60	41.34	40.51	37.15	38.00	40.67	36.56							60
61	27.67	26.07	24.50	24.50	30.39	25.78							61
62	19.17	17.36	15.06		19.38	19.36							62
63	11.33	12.78		10.33	9.05	10.40							63
64	22.17	23.00	19.67		24.50	20.43	23.66	21.50	21.14		20.37	19.53	64
65	55.00	51.00											65
66	32.33	33.44											66
67	20.17	19.36											67
68	17.67												68
69	73.29	70.65											69
70	42.92	41.61											70
71	25.50	23.79											71
72													72
73	49.00	50.11											73
74	37.52	37.53											74
75	29.55	28.71											75
76	21.52	17.58											76
77	25.10	27.14											77
78													78
79													79
80													80

6
Walter Mulford

U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

RECORD OF
WHOLESALE PRICES OF LUMBER
(PER 1,000 FEET B. M.)

Based on actual sales made F. O. B. Mill
FOR
APRIL, MAY AND JUNE, 1911

PREFATORY NOTE

The Forest Service has two main purposes in collecting and compiling this record of f. o. b. mill prices: first, to have a continuous statistical record of such prices of the various commercial woods; and, second, to show, in contrast to market prices—which include the important items of freight charges and selling costs—just what the manufacturers of lumber receive for their product at the mill. The prices given are wholesale, based on actual sales f. o. b. mill, for delivery outside of local territory. Only a few representative grades and the mill run are included. By mill run is meant the average of all grades of lumber produced. The record is compiled by states, and is made up from reports received from approximately five thousand of the largest manufacturers scattered throughout the country. It is published quarterly.

The Forest Service wishes to acknowledge the courtesy of the manufacturers for their prompt and efficient coöperation. Their assistance has been of great value in making the record complete, accurate, and promptly available for distribution.

SUMMARY

Western softwoods generally fell in price during the second quarter of 1911. This decline was particularly noticeable for Douglas fir in Oregon; for western red cedar, Douglas fir, white fir, western yellow pine, and Sitka spruce in Washington; for western yellow pine in Idaho; and for western larch in Montana. In California, western yellow pine fell, but the distinctive commodity, redwood, advanced, particularly in the Clear 6" to 12", 10' to 20' grade and Common boards No. 2. In Oregon, western yellow pine remained fairly steady while Sitka spruce advanced. Western hemlock averaged about the same at the Washington mills. This was also true of western white pine in Idaho and of western yellow pine in Montana and Colorado. Compared with the corresponding period of 1910, western softwoods were generally low in price.

Excepting in Louisiana and Mississippi, the eastern softwood prices for the first two quarters of 1911 held substantially firm. Louisiana, however, showed an increase over the first quarter in every grade of yellow pine except Flooring, B, v. g. 13|16"x34", which fell 24 cents per thousand. This grade was stable in Mississippi while all other grades of yellow pine advanced except B and better car siding, which dropped 90 cents. North Carolina pine advanced in Virginia, especially in the case of No. 1 edge 4|4, under 12". In Tennessee, Kentucky and New York, the upper grades of hemlock showed improvement. General improvement in hemlock prices was also seen in Wisconsin, Michigan, Pennsylvania, New Hampshire and Vermont. Hemlock mill run prices fell in Maine, Massachusetts and Connecticut. White pine mill run prices fell in Pennsylvania and Massachusetts, and increased in New York, New Hampshire, Vermont, Maine and Connecticut. In the last named State, the advance was slightly better than \$2.00 per thousand. Michigan and Wisconsin white pine prices averaged about the same, but in Minnesota a decrease was felt in every grade, particularly in Selects C and better, and Shop No. 3. Spruce prices generally held constant in West Virginia, New York and Vermont. In New Hampshire, however, improvement was felt in every grade, particularly Merch. 2"x8" and up, 10' to 24' boards. The reverse condition occurred in Maine and Massachusetts. Merch. 2"x8" and up and Lath, 1½", especially, declined at the mills in Maine.

A comparison of the second quarter of 1911 with the corresponding period of 1910 shows a slight general improvement this year in eastern softwood prices. All grades of yellow pine advanced in Texas; all but B and better car siding, in Mississippi; all but B and better car siding and No. 1 Common car lining in Arkansas; and all but Timbers S1S1E, in Alabama. In Louisiana, the upper grades of yellow pine advanced and the lower grades fell. Yellow pine generally declined in North Carolina and Tennessee. Hemlock declined in Tennessee, West Virginia and Maine; advanced in Pennsylvania, New Hampshire and Vermont; and remained generally stable in Wisconsin and Michigan. White pine advanced in Maine and, except for No. 4 Boards, Fencing and Mill Run, in Michigan. In Minnesota and Wisconsin, white pine remained fairly uniform. Spruce showed a decline in West Virginia and Maine, but advanced in Vermont.

Hardwood prices of the second quarter averaged about the same as those of the first quarter of 1911. Ash showed special improvement in Arkansas, Missouri, Tennessee, Virginia, Pennsylvania and New York. In New York, basswood First and Seconds advanced over \$5.00 per thousand, but remained \$2.50 below the price received during the same period of 1910. Birch, unselected, advanced in West Virginia, New York and Vermont; declined throughout all grades in Michigan; and was practically stable in Wisconsin. Chestnut showed particular gains in Ohio, Firsts and Seconds advancing nearly \$4.00, and Mill Run advancing \$2.25 per thousand. Cottonwood prices were characterized by increases in Arkansas, decreases of all grades in Mississippi, and general stability in the other States. Cypress held substantially firm except in Missouri, where increases of one to two dollars per thousand occurred. Gum remained generally steady but increased for all grades in Mississippi. Hickory brought much better prices at the Pennsylvania mills, and held firm in the other States. Hard maple advanced in West Virginia and Wisconsin. Plain oak showed general improvement; quartered red oak declined in Mississippi, Tennessee and Ohio, but advanced in the other States; while quartered white oak remained about the same. Poplar fell in Mississippi, Alabama, North Carolina, Virginia and West Virginia, but increased in Indiana and Ohio. On the whole, prices for the second quarter of 1911 compared well with the prices of the same period of 1910. Hard maple showed general improvement, especially at the West Virginia mills. Quartered white oak showed decided improvement in Missouri, but averaged lower in the other States.

	SPECIES	GRADE
1	Cedar, Western Red	Beveled Siding No. 1, $\frac{1}{2}$ "x6"
2	do	Shop No. 2, 1" and $1\frac{1}{2}$ "x8"
3	do	Shingles, Perfection, 18"
4	do	Shingles, Extra Clear, 5 $\frac{1}{2}$ "-16"
5	do	Star-A-Star, 6 $\frac{1}{2}$ "-16"
6	do	Mill run
7	Fir, Douglas	Flooring No. 1, v. g., 1"x4"
8	do	Flooring No. 2, v. g., 1"x4"
9	do	Flooring No. 2, flat, 1"x4"
10	do	Finish No. 2 and better, 6" and 8"
11	do	Drop Siding, No 2 slash
12	do	Dimension, Com., S1S1E, 2"x12"-16'
13	do	Car sills, 5"x8"-36'
14	do	Timbers, 12"x12", average 32'
15	do	Cross-ties, 7"x9"
16	do	Lath, per M
17	do	Mill run
18	Fir, White	Common boards, 6" and 8"
19	do	Lath, per M
20	do	Mill run
21	Hemlock, Western	Flooring, Nos. 1 and 2, v. g., 1"x4"
22	do	Finish, Nos. 1 and 2, 5" and wider
23	do	Dimension, No. 1 Com., 2"x4" to 2"x8"
24	do	Shiplap, 1"
25	do	Shop No. 1, $1\frac{1}{2}$ "x8" and wider
26	do	Mill run
27	Larch, Western	Flooring, A and B (Nos. 1 and 2 clear), 1"x4"
28	do	Finish, A and B (Nos. 1 and 2 clear), 1"x8"
29	do	Drop siding, A and B (Nos. 1 and 2 clear), 1"x6"
30	do	Common boards, No. 2, 1"x8"-16'
31	do	Dimension, No. 1 Com., 2"x8"-16'
32	do	Lath, per M
33	do	Mill run
34	Pine, Sugar	Firsts and seconds, clear
35	do	Shop No. 1, 2"x8" and wider
36	do	Shop No. 2, 2"x8" and wider
37	do	Mill run
38	Pine, Western White	Finish, C select, 8"
39	do (Idaho White)	Finish, D select, 8"
40	do	Beveled siding, B and better, 4" and 6"
41	do	Beveled siding, C, 4" and 6"
42	do	Common boards, No. 2, 6" and 8"
43	do	Mill run
44	Pine, Western Yellow	Flooring, B and better (Nos. 1 and 2 clear), 4" and 6"-16'
45	do (Including Western Pine, California White Pine, New Mexico White Pine)	Finish, B select and better, 1"x10"-16'
46	do	Finish, C select, 8"
47	do	Beveled siding, B and better, 4" and 6"
48	do	Beveled siding C, 4" and 6"
49	do	Shop No. 1, 6 $\frac{1}{4}$ "
50	do	Shop No. 2, 6 $\frac{1}{4}$ "
51	do	Common boards, No. 2, 1"x8"-16'
52	do	Dimension, No. 1, Com., 2"x8"-16'
53	do	Lath No. 1, per M
54	do	Mill run
55	Redwood	Clear, 6" to 12", 10' to 20'
56	do	Sappy clear, 6" to 8", 10' to 20'
57	do	Common boards No. 1
58	do	Common boards No. 2
59	do	Cross-ties, 6"x8"-8'
60	do	Shingles No. 1, per M
61	do	Shingles No. 2, per M
62	do	Mill run
63	Spruce, Sitka	Shop No. 1, 6 $\frac{1}{4}$ "
64	do (Western Spruce)	Finish No. 2, clear and better, 1"x12"
65	do	Flooring No. 2, clear and better, 1"x4"
66	do	Beveled siding, B, $\frac{1}{2}$ "x6"
67	do	Common boards, 1 $\frac{1}{2}$ "x12"
68	do	Mill run

	California	Oregon	Washington	Idaho	Montana	Colorado	
1			16.87				1
2			13.96				2
3			2.45				3
4			1.85				4
5			1.51				5
6		16.00	13.16				6
7		26.85	24.10				7
8		22.38	20.79				8
9		16.40	13.99				9
10		22.96	20.34				10
11		18.01	15.24				11
12	13.83	9.59	8.33		13.38		12
13		15.42	11.83				13
14		10.29	9.31				14
15		9.17	8.71				15
16		1.70	1.24				16
17		11.31	10.88			15.00	17
18			7.82	11.50			18
19			8.00				19
20				11.50			20
21			22.50				21
22			20.62				22
23			8.00				23
24			8.58				24
25							25
26		11.33	9.08				26
27			21.00	24.47	22.19		27
28					25.99		28
29			21.00		22.06		29
30			10.83		14.72		30
31			9.17	9.42	11.28		31
32					1.75		32
33				10.12	12.60		33
34	49.50						34
35	32.17						35
36	22.50						36
37							37
38				35.00			38
39				26.00			39
40				25.33			40
41				21.46			41
42				16.29			42
43				17.30			43
44				34.75	37.72		44
45	43.56			45.50	42.35		45
46	37.67		30.75	27.60	33.71		46
47	24.75	22.00	21.12	23.50	23.60		47
48	21.53		19.00	20.03	19.95		48
49	26.17	25.25	24.90	23.58			49
50	19.41	17.50	17.10	16.88	18.94		50
51	13.18	14.50	13.86	13.90	15.60	13.17	51
52	14.00	11.87	9.58	10.29		14.00	52
53	2.27		2.74	2.88	3.66	3.53	53
54			12.58	13.85	15.58	13.73	54
55	26.03						55
56	20.64						56
57	12.96						57
58	10.13						58
59	11.33						59
60	1.50						60
61	.96						61
62	17.38						62
63		17.13	18.87				63
64		31.00	29.60				64
65			29.33				65
66		19.25	16.62				66
67		12.00	9.50				67
68			13.85				68

SPECIES		GRADE
1	Hemlock	2" piece stuff, S1S1E, 2"x4"-16'
2	do (Lake States)	Boards, No. 1, S1S, 1"x8"-16'
3	do	Timbers, rough, 4"x4" to 8"x8"-16'
4	do	Fencing No. 1, S1S, 1"x8"
5	do	Lath No. 1, $\frac{1}{2}$ "-4"
6	do	Mill run
7	Hemlock	8 4 merch. 4" to 12", 10' to 20'
8	do (Eastern and West Virginia)	4 4 merch. 6" and 8"-16'
9	do	4 4 merch. 10" and 12"-16'
10	do	4 4 merch. boards, 6" and up, S1S, clipped, 12', 14' and 16'
11	do	4 4 boards, No. 2, 1"x4"-12", 6'-20'
12	do	Mill run, mill culls out
13	do	Mill culls
14	do	Mill run
15	Pine	Flooring, No. 2, 1"x4"x10'-16'
16	do (North Carolina)	Flooring, No. 3, 1"x4"x10'-16'
17	do	Dimension (air dried), 2"x8"-16' and under
18	do	Roofers, 1"x8", D. & M.
19	do	Partition No. 1, 13|16"x31", 10'-16'
20	do	No. 1 edge 4|4, under 12"
21	do	Box edge 4|4, under 12"
22	do	Mill run
23	Pine, white	Selects C and better, 5|4 (M. L.)
24	do	Inch finish, C Selects, 10" (M. L.)
25	do	Shop No. 1, 8|4 (M. L.)
26	do	Shop No. 3, 5|4 (M. L.)
27	do	Beveled siding, C, 6"-16'
28	do	Boards No. 2, 1"x8"-16'
29	do	Boards No. 3, 12", 10'-20'
30	do	Boards No. 4, mixed widths, 10'-20'
31	do	Fencing No. 2, S1S, 6"-16'
32	do	Lath No. 1 (W. P.)
33	do	Lath No. 1 (mixed)
34	do	Mill run
35	Pine, yellow	Flooring, B, v. g, 13|16"x31"
36	do (Mississippi Valley Mills)	Flooring, No. 2, D. & M., 1"x4"
37	do	Flooring, No. 2, S2S and C, M., 1"x6"
38	do	Flooring, B, flat, 13|16"x31"
39	do	Finish, B and better, 6" and wider
40	do	Dimension No. 1, S1S1E, 2"x8"-16'
41	do	Com. boards No. 1, S2S, 1"x10"
42	do	Com. boards, No. 2, S2S, 1"x8"
43	do	Com. boards, No. 2, S2S, 1"x12"
44	do	Timbers S1S1E, 6"x8"-16'
45	do	Car siding, B and better, 1"x4" and 6"x9'-18'
46	do	Com. car lining, No. 1, 1"x6"x10'-20'
47	do	Lath No. 1, $\frac{1}{4}$ "
48	do	Mill run
49	Pine, yellow	Finish, B and better, 6" and wider
50	do (Atlantic Coast Mills)	Flooring, B and better, heart rift, 13|16"x21"
51	do	Flooring, B and better, sap rift, 13|16"x21"
52	do	Flooring, B, heart rift, 13|16"x21"
53	do	Flooring, B, sap rift, 13|16"x21"
54	do	Flooring, B, sap flat, 13|16"x31"
55	do	Com. boards, No. 1, S2S, 1"x10'x10'-16'
56	do	Com. boards, No. 2, S2S, 1"x10'x10'-16'
		Plank and dimensions:
57	do Merch. grade (Sail)	Sizes 2"x6" to 8"x8", average 24'
58	do	Sizes 2"x9" to 10"x10", average 24'
59	do	Sizes 2"x12" to 12"x12", average 24'
60	do	Sizes 2"x14" to 14"x14", average 24'
61	do	Sizes 2"x16" to 16"x16", average 24'
62	do	Mill run
63	Spruce (Eastern)	Merch. frames 9" and under, 24' and under
64	do	Merch. frames 10" and 12", 24' and under
65	do	Merch. random 10" and 12", 10' and up
66	do	Merch. 2"x7" and under, 10' to 24'
67	do	Merch. 2"x8" and up, 10' to 24'
68	do	Lath, 1 $\frac{1}{4}$ "
69	do	Mill run
70	do (Adirondack)	Mill run, mill culls out
71	do	No. 1 and clear
72	do	No. 2
73	do	No. 3
74	do	Mill culls
75	do	Mill run
76	do (West Virginia)	Merch. frames 3"x4" to 8"x8", 10'-16'
77	do	Merch. frames 2"x12" to 12"x12", 10'-16'
78	do	Boards, merch., 1"x12", 10'-20'
79	do	Boards, box, 1"x4"-12"
80	do	Mill run

	Texas	Arkansas	Louisiana	Mississippi	Alabama	Missouri	Florida	Georgia	South Carolina	North Carolina	Tennessee	Kentucky	Virginia	
1														1
2														2
3														3
4														4
5														5
6														6
7											12.87	15.50		7
8											13.84			8
9											13.93			9
10														10
11														11
12														12
13														13
14											11.31			14
15									18.75	20.17			21.00	15
16									15.00	15.80				16
17									12.17	12.06			12.50	17
18									11.08	12.20			11.60	18
19										23.05				19
20									22.10	18.92			24.78	20
21									11.12	10.25			11.78	21
22									13.25	13.21			13.00	22
23											62.00			23
24											55.00			24
25														25
26														26
27														27
28											23.50			28
29											20.00			29
30														30
31											19.00			31
32											3.37			32
33											3.00			33
34										18.00	17.50			34
35		28.61	27.92	28.75	28.35									35
36	10.06	11.33	11.00	10.33	10.10									36
37	10.75	11.65	11.27	11.69	11.14									37
38	18.39	19.22	18.75	18.74	18.08	20.50								38
39	23.63	24.85	23.29	22.45	21.36	21.00								39
40	12.19	12.50	12.34	12.29	12.19	14.50								40
41	14.19	14.85	14.73	15.63	15.58	14.00								41
42	12.34	12.56	12.08	12.14	12.04	12.63								42
43	12.66	13.39	12.99	12.93	12.90									43
44	12.75	14.21	12.72	12.15	11.50									44
45	17.58	18.39	19.00	19.50	18.75									45
46	14.92	14.18	14.78	16.07	14.87									46
47		2.06	1.90	1.98	2.12									47
48	13.83	14.51	14.37	14.42	14.10	11.21								48
49							20.78	19.00						49
50							39.83	39.50						50
51							27.83	27.41						51
52								38.00						52
53								28.00						53
54							18.42	18.75	20.00					54
55							16.90	16.67						55
56							11.93	11.93						56
57							11.70	12.95	13.50					57
58							13.25	14.50	14.00					58
59							15.75	16.88	15.50					59
60							18.00	20.70						60
61							21.33	23.50						61
62							14.51	12.98						62
63														63
64														64
65														65
66														66
67														67
68														68
69														69
70														70
71														71
72														72
73														73
74														74
75														75
76														76
77														77
78														78
79														79
80														80

	SPECIES	GRADE
1	Hemlock	2" piece stuff, S1S1E, 2"x4"-16'
2	do (Lake States)	Boards, No. 1, S1S, 1"x8"-16'
3	do	Timbers, rough, 4"x4" to 8"x8"-16'
4	do	Fencing No. 1, S1S, 1"x6"
5	do	Lath No. 1, 1"x4"
6	do	Mill run.
7	Hemlock	8'4 merch. 4" to 12", 10' to 20'
8	do (Eastern and West Virginia)	4'4 merch. 6" and 8"-16'
9	do	4'4 merch. 10" and 12"-16'
10	do	4'4 merch. boards, 6" and up, S1S, clipped, 12', 14' and 16'
11	do	4'4 boards, No. 2, 1"x4"-12", 6'-20'
12	do	Mill run, mill culls out
13	do	Mill culls.
14	do	Mill run.
15	Pine	Flooring, No. 2, 1"x4"x10'-16'
16	do (North Carolina)	Flooring, No. 3, 1"x4"x10'-16'
17	do	Dimension (air dried), 2"x8"-16' and under.
18	do	Roofers 1"x8" D. & M.
19	do	Partition No. 1, 13'16"x3", 10'-16'
20	do	No. 1 edge 4'4, under 12"
21	do	Box edge 4'4, under 12"
22	do	Mill run.
23	Pine, white.	Selects C and better, 5'4 (M. L.)
24	do	Inch finish, C Selects, 10" (M. L.)
25	do	Shop No. 1, 8'4 (M. L.)
26	do	Shop No. 3, 5'4 (M. L.)
27	do	Beveled siding, C, 6"-16'
28	do	Boards No. 2, 1"x8"-16'
29	do	Boards No. 3, 12", 10'-20'
30	do	Boards No. 4, mixed widths, 10'-20'
31	do	Fencing No. 2, S1S, 6"-16'
32	do	Lath No. 1 (W. P.)
33	do	Lath No. 1 (mixed)
34	do	Mill run.
35	Pine, yellow	Flooring, B, v. g. 13'16"x3", 1"x4"
36	do (Mississippi Valley Mills)	Flooring, No. 2, D. & M., 1"x4"
37	do	Flooring, No. 2, S2S and C. M., 1"x6"
38	do	Flooring, B, flat, 13'16"x3"
39	do	Finish, B and better, 6" and wider
40	do	Dimension No. 1, S1S1E, 2"x8"-16'
41	do	Com. boards, No. 1, S2S, 1"x10"
42	do	Com. boards, No. 2, S2S, 1"x8"
43	do	Com. boards, No. 2, S2S, 1"x12"
44	do	Timbers S1S1E, 6"x8"-16'
45	do	Car siding, B and better, 1"x4" and 6"x9'-18'
46	do	Com. car lining, No. 1, 1"x6"x10'-20'
47	do	Lath No. 1, 1"x4"
48	do	Mill run.
49	Pine, yellow	Finish, B and better, 6" and wider
50	do (Atlantic Coast Mills)	Flooring, B and better, heart rift, 13'16"x2", 1"x4"
51	do	Flooring, B and better, sap rift, 13'16"x2", 1"x4"
52	do	Flooring, B, heart rift, 13'16"x2", 1"x4"
53	do	Flooring, B, sap rift, 13'16"x2", 1"x4"
54	do	Flooring, B, sap flat, 13'16"x3", 1"x4"
55	do	Com. boards, No. 1, S2S, 1"x10"x10'-16'
56	do	Com. boards, No. 2, S2S, 1"x10"x10'-16'
57	do Merch. grade (Sail)	Plank and dimensions:
58	do	Sizes 2"x6" to 8"x8", average 24'
59	do	Sizes 2"x9" to 10"x10", average 24'
60	do	Sizes 2"x12" to 12"x12", average 24'
61	do	Sizes 2"x14" to 14"x14", average 24'
62	do	Sizes 2"x16" to 16"x16", average 24'
63	Spruce (Eastern)	Mill run.
64	do	Merch. frames 9" and under, 24' and under.
65	do	Merch. frames 10" and 12", 24' and under.
66	do	Merch. random 10" and 12", 10' and up.
67	do	Merch. 2"x7" and under, 10' to 24'
68	do	Merch. 2"x8" and up, 10' to 24'
69	do	Lath, 1 1/2"
70	do (Adirondack)	Mill run.
71	do	Mill run, mill culls out.
72	do	No. 1 and clear.
73	do	No. 2.
74	do	No. 3.
75	do	Mill culls.
76	do	Mill run.
77	do (West Virginia)	Merch. frames 3"x4" to 8"x8", 10'-16'
78	do	Merch. frames 2"x12" to 12"x12", 10'-16'
79	do	Boards, merch., 1"x12", 10'-20'
80	do	Boards, box, 1"x4"-12"
		Mill run.

	West Virginia	Maryland	Pennsylvania	New York	New Hampshire	Vermont	Maine	Massachusetts	Rhode Island	Connecticut	Minnesota	Wisconsin	Michigan	
1			18.00	18.38								15.99	15.30	1
2				18.61								17.21	16.59	2
3			16.50	17.50								16.54	15.86	3
4				17.75								15.84	16.05	4
5			3.68	3.77								3.31	3.44	5
6			18.00	16.70								12.75	12.33	6
7	15.25		18.75				18.00							7
8	14.92		19.75											8
9	16.25		21.25											9
10	15.38		19.50		17.60	16.80	16.60							10
11	14.36		14.25				14.40							11
12	14.79				16.75	16.67	14.83							12
13	6.83		10.75				9.75							13
14	14.08		16.52	17.00		16.22	14.70	15.00		16.00				14
15														15
16														16
17		15.50												17
18														18
19														19
20														20
21														21
22		12.12												22
23											54.64	56.77	57.00	23
24											46.13	49.00		24
25											46.64	51.45	51.80	25
26											24.63	26.58	29.15	26
27											25.55	26.09	26.08	27
28											23.45	23.92	28.33	28
29			23.25		23.67		21.17				20.00	20.98	24.71	29
30			20.75				23.00				12.50	12.45	13.00	30
31							19.82				25.65	26.63	29.67	31
32			3.75								3.79	3.72	3.76	32
33			3.00				3.00				3.32	3.10	3.50	33
34			23.25	23.73	17.50	19.38	19.23	17.25		20.11	18.80	21.25	21.31	34
35														35
36														36
37														37
38														38
39														39
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56														56
57														57
58														58
59														59
60														60
61														61
62														62
63					21.00	22.17	18.22							63
64					23.00	25.00	20.96							64
65					20.67	22.50	17.67							65
66					18.33		15.42							66
67					20.67	22.00	16.32							67
68					3.37		2.91							68
69					18.50	18.71	16.42	17.00						69
70			18.00											70
71			31.67			26.25								71
72			19.67			18.70								72
73			16.00			12.50								73
74			11.00											74
75			17.92											75
76	17.70													76
77	19.50													77
78	20.33													78
79	14.37													79
80	17.32													80

	SPECIES	GRADE
1	Ash.....	Firsts and seconds 4/4.....
2	do.....	No. 1 common 4/4.....
3	do.....	No. 2 common and better, 4/4 or log run.....
4	do.....	Mill run.....
5	Basswood.....	Firsts and seconds 4/4.....
6	do.....	No. 1 common 4/4.....
7	do.....	No. 2 common 4/4.....
8	do.....	Log run.....
9	do.....	Mill run.....
10	Beech.....	Firsts and seconds 4/4.....
11	do.....	No. 1 common 4/4.....
12	do.....	Mill run.....
13	Birch, unselected.....	Firsts and seconds 4/4.....
14	do.....	No. 1 common 4/4.....
15	do.....	No. 2 common 4/4.....
16	do.....	No. 2 common and better, 4/4 or log run.....
17	do.....	Mill run.....
18	Chestnut.....	Firsts and seconds 4/4.....
19	do.....	No. 1 common 4/4.....
20	do.....	No. 2 common and S. W. 4/4.....
21	do.....	No. 3 common 4/4.....
22	do.....	Mill run.....
23	Cottonwood.....	Firsts and seconds 4/4, 6" to 12".....
24	do.....	Boxboards 4/4, 13" to 17".....
25	do.....	No. 1 common 4/4.....
26	do.....	No. 2 common 4/4.....
27	do.....	Mill run.....
28	Cypress.....	Firsts and seconds clear 4/4.....
29	do.....	Selects 4/4.....
30	do.....	Shop, No. 1, 4/4.....
31	do.....	No. 1 common 4/4, random widths.....
32	do.....	No. 2 common 4/4, random widths.....
33	do.....	Mill run.....
34	Cypress, shingles.....	Bests 5".....
35	do.....	Primes 5".....
36	Elm, rock.....	Firsts and seconds 8/4.....
37	do.....	No. 1 common and better 8/4.....
38	do.....	No. 2 common and better 8/4.....
39	do.....	Mill run.....
40	Elm, soft.....	No. 1 common and better 4/4.....
41	do.....	No. 2 common and better 4/4.....
42	do.....	Mill run.....
43	Gum.....	Firsts and seconds 4/4, red.....
44	do.....	No. 1 common 4/4, red.....
45	do.....	Firsts and seconds 4/4, sap.....
46	do.....	No. 1 common 4/4, sap.....
47	do.....	No. 2 common 4/4.....
48	do.....	Mill run.....
49	Hickory.....	Firsts and seconds 8/4.....
50	do.....	No. 1 common 8/4.....
51	do.....	No. 2 common 8/4.....
52	do.....	Mill Run.....
53	Maple, hard.....	Firsts and seconds 4/4.....
54	do.....	No. 1 common 4/4.....
55	do.....	Mill run.....
56	Maple, soft.....	No. 1 common and better 4/4.....
57	do.....	No. 3 common 4/4.....
58	do.....	Log run.....
59	do.....	Mill run.....
60	Oak, plain.....	Firsts and seconds 4/4.....
61	do.....	No. 1 common 4/4.....
62	do.....	No. 2 common 4/4.....
63	do.....	No. 3 common 4/4.....
64	do.....	Mill run.....
65	Oak, red, quartered.....	Firsts and seconds 4/4.....
66	do.....	No. 1 common 4/4.....
67	do.....	No. 2 common 4/4.....
68	do.....	Mill run.....
69	Oak, white, quartered.....	Firsts and seconds 4/4.....
70	do.....	No. 1 common 4/4.....
71	do.....	No. 2 common 4/4.....
72	do.....	Mill run.....
73	Poplar.....	Firsts and seconds 4/4.....
74	do.....	Saps or selects 4/4.....
75	do.....	No. 1 common 4/4.....
76	do.....	No. 2 common 4/4.....
77	do.....	Mill run.....
78	Tupelo (Bay Poplar).....	Firsts and seconds clear, random 4/4.....
79	do.....	No. 1 common, random 4/4.....
80	do.....	Mill run.....

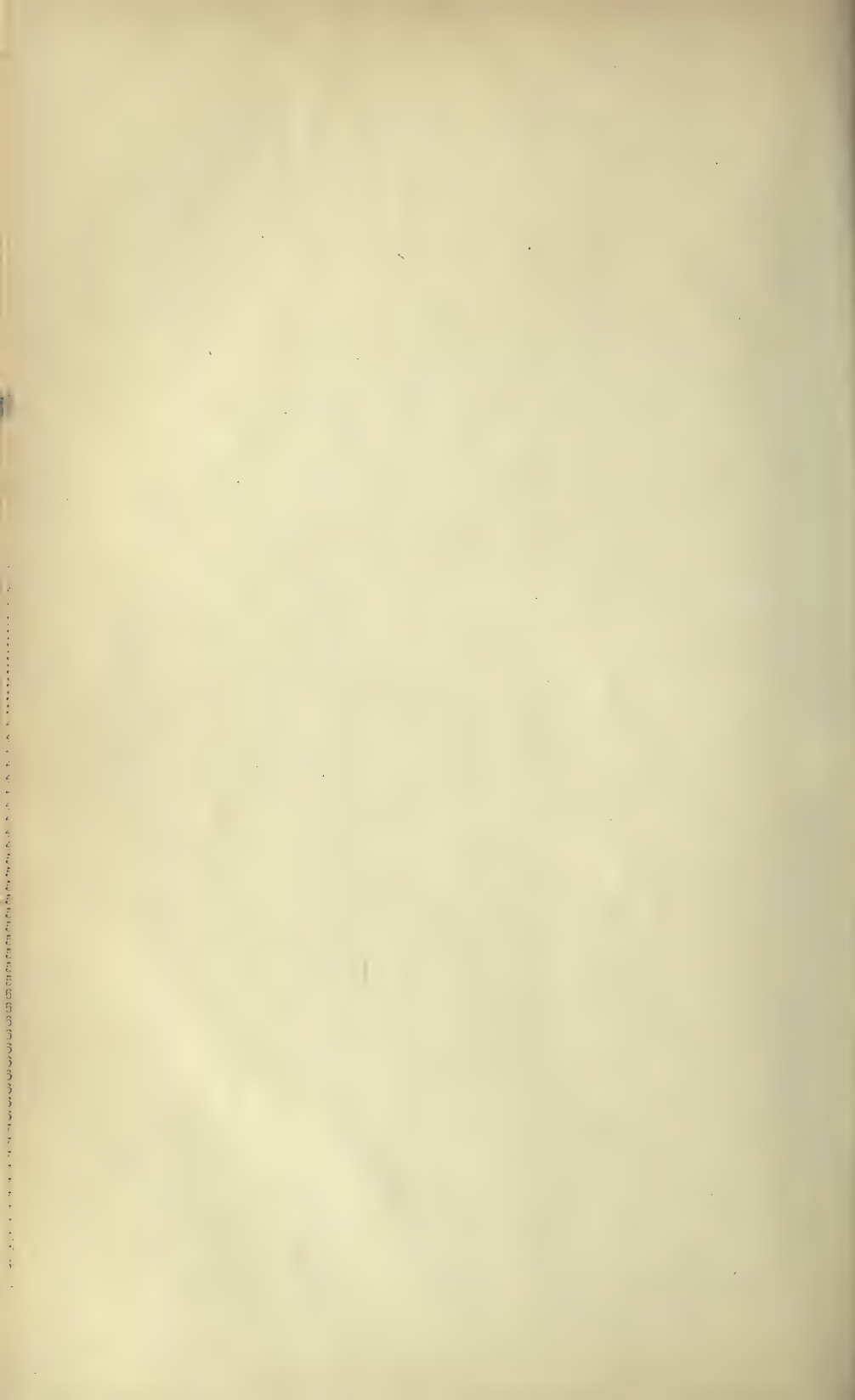
	Arkansas	Louisiana	Mississippi	Alabama	Missouri	Texas	Florida	South Carolina	North Carolina	Tennessee	Kentucky	Virginia	West Virginia	
1	37.44	35.60	36.29	35.00	40.83	39.50			39.00	38.31	37.21	38.50	43.71	1
2	19.96	19.30	19.33	21.50	23.00	21.00			26.50	24.22	24.86	23.50	28.93	2
3	10.85	10.20	10.30	13.25		12.00			13.55	14.40	17.20	16.00	21.46	3
4	20.56		24.00		20.00				15.50	21.98	22.00		21.30	4
5									33.00	30.54	33.00		35.59	5
6									21.75	21.42	21.75	20.00	25.43	6
7									13.25	13.27	12.33	11.33	16.40	7
8									21.50	21.75	20.50	19.87	22.71	8
9									19.33	19.48	20.00		18.17	9
10													21.50	10
11													16.50	11
12											12.90		11.60	12
13													31.42	13
14													21.08	14
15													11.00	15
16													18.58	16
17													16.64	17
18									40.88	37.43	39.93	39.60	42.53	18
19									28.63	25.34	28.03	27.50	30.89	19
20									11.83	11.86	12.68	11.00	13.00	20
21									7.08	6.75	7.50	6.25	8.45	21
22										13.69	17.08	15.75	13.58	22
23	24.50	22.10	24.79		26.33					25.00	27.75			23
24	47.63	45.75	46.50		49.50					47.75	49.50			24
25	18.23	15.63	16.92		18.17					18.50	18.50			25
26	11.93	11.20	11.92		15.50					14.50	12.25			26
27	20.33	18.60	19.55								14.87			27
28	32.85	34.90	31.50		35.37	33.37	35.10			35.00				28
29	29.00	29.91	27.83		30.98	30.37	31.50	31.87		30.50				29
30	18.63	18.28	17.50		19.57	18.09	20.75	24.25		18.00				30
31	12.25	14.78	13.50		15.70	14.00	16.67	16.25		13.50				31
32	8.38	8.19	9.05		11.30		11.75	11.38						32
33	19.20	21.27					24.08							33
34	3.45	3.40					4.32							34
35	2.45	2.68					3.29							35
36														36
37														37
38														38
39														39
40	21.08													40
41	16.14		15.00											41
42	15.88	15.50	15.00											42
43	29.00	29.50	29.42		29.50									43
44	16.66	17.66	19.00		18.20					17.25				44
45	15.55	16.17	16.33		16.80					16.25				45
46	11.27	10.33	12.67		13.00	13.00				13.67				46
47	8.32	6.87	9.17		10.13	10.00				10.42				47
48	13.41		12.25		12.17					12.87	12.12			48
49	43.29		44.92	47.58						44.29				49
50	22.60			28.50						26.86	30.75			50
51	9.00			11.75						11.00				51
52	28.00										21.50		23.00	52
53										23.33			26.25	53
54										17.33			18.06	54
55										16.15	15.05		15.69	55
56	18.50												24.00	56
57	5.50												7.25	57
58	17.50												16.50	58
59	16.00				16.25						14.33		15.13	59
60	38.52	39.40	39.00	37.56	35.12	41.50			38.37	36.15	39.68	37.57	43.28	60
61	21.45	21.33	22.00	24.75	22.75	22.75			26.67	24.43	26.00	26.13	30.81	61
62	10.96	10.60	11.50	11.33	12.33	12.50			14.50	12.61	15.41	13.75	17.53	62
63	5.82		5.33	8.51	6.17				7.07	7.18	8.98	7.67	8.43	63
64	20.82		19.53		14.50				16.67	19.53	19.24	15.71	22.75	64
65	50.75	48.08	49.50							49.93	53.86			65
66	29.62	28.66	28.33							30.11	32.14			66
67	15.09		14.67							15.46	19.67			67
68	29.33		30.20											68
69	66.51	68.25	66.50	65.83	70.33					64.07	66.75			69
70	39.34	38.00	36.50	37.00	41.50					37.95	42.00			70
71	19.71	19.50	17.33	18.00	21.00					17.98	22.25			71
72	39.60													72
73			47.00	45.25					50.00	47.48	47.89	47.38	50.05	73
74			35.33	32.50					35.56	37.26	36.40	35.00	35.44	74
75			24.50	24.55					28.17	25.98	28.83	27.33	32.00	75
76			14.00	13.00					15.44	14.87	16.84	15.21	20.81	76
77			25.80							28.00	28.00		26.25	77
78		18.83												78
79		13.20												79
80		13.72	12.25						12.00					80

SPECIES

GRADE

1	Ash	Firsts and seconds 4/4.
2	do	No. 1 common 4/4.
3	do	No. 2 common and better, 4/4 or log run.
4	do	Mill run.
5	Basswood	Firsts and seconds 4/4.
6	do	No. 1 common 4/4.
7	do	No. 2 common 4/4.
8	do	Log run.
9	do	Mill run.
10	Beech	Firsts and seconds 4/4.
11	do	No. 1 common 4/4.
12	do	Mill run.
13	Birch, unselected	Firsts and seconds 4/4.
14	do	No. 1 common 4/4.
15	do	No. 2 common 4/4.
16	do	No. 2 common and better, 4/4 or log run.
17	do	Mill run.
18	Chestnut	Firsts and seconds 4/4.
19	do	No. 1 common 4/4.
20	do	No. 2 common and S. W. 4/4.
21	do	No. 3 common 4/4.
22	do	Mill run.
23	Cottonwood	Firsts and seconds 4/4, 6" to 12"
24	do	Boxboards 4/4, 13" to 17"
25	do	No. 1 common 4/4.
26	do	No. 2 common 4/4.
27	do	Mill run.
28	Cypress	Firsts and seconds clear 4/4.
29	do	Selects 4/4.
30	do	Shop, No. 1, 4/4.
31	do	No. 1 common 4/4, random widths.
32	do	No. 2 common 4/4, random widths.
33	do	Mill run.
34	Cypress, shingles	Bests 5"
35	do	Primes 5"
36	Elm, rock	Firsts and seconds 8/4.
37	do	No. 1 common and better 8/4.
38	do	No. 2 common and better 8/4.
39	do	Mill run.
40	Elm, soft	No. 1 common and better 4/4.
41	do	No. 2 common and better 4/4.
42	do	Mill run.
43	Gum	Firsts and seconds 4/4, red.
44	do	No. 1 common 4/4, red.
45	do	Firsts and seconds 4/4, sap.
46	do	No. 1 common 4/4, sap.
47	do	No. 2 common 4/4.
48	do	Mill run.
49	Hickory	Firsts and seconds 8/4.
50	do	No. 1 common 8/4.
51	do	No. 2 common 8/4.
52	do	Mill Run.
53	Maple, hard	Firsts and seconds 4/4.
54	do	No. 1 common 4/4.
55	do	Mill run.
56	Maple, soft	No. 1 common and better 4/4.
57	do	No. 3 common 4/4.
58	do	Log run.
59	do	Mill run.
60	Oak, plain	Firsts and seconds 4/4.
61	do	No. 1 common 4/4.
62	do	No. 2 common 4/4.
63	do	No. 3 common 4/4.
64	do	Mill run.
65	Oak, red, quartered	Firsts and seconds 4/4.
66	do	No. 1 common 4/4.
67	do	No. 2 common 4/4.
68	do	Mill run.
69	Oak, white, quartered	Firsts and seconds 4/4.
70	do	No. 1 common 4/4.
71	do	No. 2 common 4/4.
72	do	Mill run.
73	Poplar	Firsts and seconds 4/4.
74	do	Saps or selects 4/4.
75	do	No. 1 common 4/4.
76	do	No. 2 common 4/4.
77	do	Mill run.
78	Tupelo (Bay Poplar)	Firsts and seconds clear, random 4/4.
79	do	No. 1 common, random 4/4.
80	do	Mill run.

	Ohio	Indiana	Illinois	Michigan	Wisconsin	Pennsylvania	New York	Connecticut	Massachusetts	New Hampshire	Vermont	Rhode Island	Georgia	
1	42.00	40.00			37.53	37.50	46.00							1
2	28.56	25.16			22.84	27.50	31.33							2
3	16.50	19.25		25.75	22.20	22.00	23.37							3
4	26.50	26.86		24.26	18.91	24.75	24.11	21.80	22.50	20.50	20.84			4
5	31.75	32.00		37.40	34.03		37.50				27.75			5
6	22.66	22.38		24.00	23.47		26.33				20.00			6
7	15.16	15.83		17.00	13.69		20.00							7
8	21.12	21.38		23.71	22.65	21.75	22.67				19.70			8
9	21.71	22.33		21.23	19.20		23.50			22.00	18.75			9
10		22.67		21.50		20.00	22.75				18.67			10
11		17.10		17.75			16.67				15.00			11
12	16.93	17.63		13.07	12.88	15.54	14.50		14.25		15.32			12
13				33.33	34.28		36.50				26.67			13
14				19.00	19.52	20.00	26.58				25.00			14
15				12.00	11.50		14.50							15
16				21.85	20.72									16
17				17.27	17.44	20.15	20.00	14.38	16.40	16.33	17.89			17
18	41.17						43.50							18
19	28.56						32.00							19
20	16.25	16.88				18.50								20
21						15.25								21
22	19.75	30.50				17.69	20.50	18.25	17.80	18.00		18.87		22
23														23
24														24
25														25
26														26
27														27
28														28
29														29
30														30
31														31
32														32
33														33
34														34
35														35
36					32.70									36
37					23.80									37
38					22.44									38
39	18.25	19.00		23.56	24.00		22.50				15.83			39
40	20.25	24.44		24.00	25.00									40
41	15.67	17.93		24.20	19.77									41
42	20.00	18.86		19.51	17.71		21.50				16.67			42
43														43
44		22.50												44
45		20.17												45
46														46
47		10.50												47
48		17.00												48
49	51.25	49.14				51.25								49
50		31.55	26.00			35.67								50
51	20.00	19.75				25.00								51
52	24.95	29.00	30.88			27.50								52
53	25.63	25.40		28.09	25.43	28.00	26.90				25.00			53
54	18.32	19.44		20.31	17.48	22.71	19.10							54
55	18.66	19.17		19.08	15.91	17.64	17.39		17.00	18.25	17.11			55
56	21.86	22.75			18.88	21.50								56
57				8.12	7.56									57
58		19.00		17.98	15.68									58
59	17.25	18.44		14.60	14.67	13.00	16.50	12.00	15.00					59
60	43.71	41.32	38.00		44.77	36.33								60
61	28.93	27.10	23.67		31.88	27.43								61
62	20.56	17.92	15.00		22.93	19.50								62
63	13.64	10.67	10.00	10.00	9.22									63
64		25.40	19.23		27.13	21.50	22.88	20.67	20.38	20.00	20.50			64
65	52.00	54.86												65
66	33.00	35.17												66
67	20.00	21.04												67
68	18.38													68
69	72.50	70.36												69
70	43.20	42.27												70
71	23.25	23.50												71
72						24.12								72
73	52.43	50.21											52.50	73
74	40.14	38.20												74
75	32.44	31.32											30.50	75
76	20.60	19.33											14.50	76
77	25.00					23.50							20.00	77
78														78
79														79
80														80



W. Mulford

Issued November 24, 1911.

U. S. DEPARTMENT OF AGRICULTURE,
FOREST SERVICE.

HENRY S. GRAVES, Forester.

RECORD OF WHOLESALE PRICES
OF LUMBER.

(PER 1,000 FEET B. M.)

BASED ON ACTUAL SALES MADE F. O. B. MILL FOR

JULY, AUGUST, AND SEPTEMBER, 1911.

PREFATORY NOTE.

The Forest Service has two main purposes in collecting and compiling this record of f. o. b. mill prices: First, to have a continuous statistical record of such prices of the various commercial woods; and, second, to show, in contrast to market prices—which include the important items of freight charges and selling costs—just what the manufacturers of lumber receive for their product at the mill. The prices given are wholesale, based on actual sales f. o. b. mill, for delivery outside of local territory. Only a few representative grades and the mill run are included. By “mill run” is meant the average of all grades of lumber produced. The record is compiled by States, and is made up from reports received from approximately 3,000 of the largest manufacturers scattered throughout the country. It is published quarterly.

The Forest Service wishes to acknowledge the courtesy of the manufacturers for their prompt and efficient cooperation. Their assistance has been of great value in making the record complete, accurate, and promptly available for distribution.

SUMMARY.

Comparing the prices of western softwoods for the third quarter with the preceding quarter for 1911, there was a slight general decline, though a few woods showed improvement. Douglas fir was slightly lower. Flooring No. 2 flat, 1" x 4", decreased 80 cents in Oregon and \$1.40 in Washington. There was a fall in the prices of western red cedar, and also white fir, western hemlock, larch, Sitka spruce, and western spruce as well. The better grades of western yellow pine were slightly lower in Oregon, though in other States all grades generally improved. Sugar pine showed the greatest increase of the western softwoods. Shop No. 2, 2" x 8" and wider, brought \$2.16 more, and firsts and seconds clear \$5.60 more than in the second quarter. Prices of western white pine, including Idaho white pine, were generally higher. In Idaho the increase was from \$1.50 to \$3.25, according to the grade. California redwood was the other western softwood to record a notable increase. The advance of common boards No. 1 amounted to \$3.16.

Of the eastern softwoods, hemlock in the Lake States and Eastern States held substantially firm with the prices of the second quarter. The greatest variation was in Michigan, where a few of the upper grades showed a reduction of 60 cents. The prices of spruce in New England fell, the decrease in Vermont and Maine ranging for the lower grades from \$1.33 to \$1.50. The reverse was the status in West Virginia. Here merchantable spruce boards 1" x 12' to 20' and box boards 1" x 4" x 12' rose in price. The latter increased 73 cents and the former \$1.03. Prices for white pine were recorded from 12 States. For the mill-run grade there was general uniformity with prices of the second quarter except in Wisconsin and Minnesota, where the decrease ranged from \$1 to \$1.50. In Tennessee this grade scored the only marked improvement; the increase was \$1.88. The upper grades of white pine brought better prices, "selects" making an advance of from \$3.30 to \$4 in Wisconsin and Michigan. No. 1 shop rose to \$2.95 in Michigan and in Minnesota to \$1.67. In Wisconsin, West Virginia, and Tennessee this grade of white pine was staple. Prices of yellow pine, the most abundant of the eastern softwoods, showed slight general improvement in all grades, especially throughout the Mississippi Valley States. The most notable increase was in Alabama, where common boards No. 1, S2S 1" x 10", and No. 2, S2S 1" x 8" amounted to, respectively, \$1.07 and 74 cents. The most marked decrease was in Georgia and Florida, where the three grades of B and better flooring showed a decline of from \$1.75 to \$5. Generally there were indications of slight improvement in South Carolina, but in North Carolina there was no appreciable change.

Compared with the second quarter, hardwood prices varied considerably, according to species and locality. Ash showed improvement in Ohio, Tennessee, and Kentucky, but in Virginia and West Virginia experienced a decline. Basswood increased in the Southern States, but in the Lake States the prices were slightly depressed. Birch, firsts and seconds, scored an advance of over \$2 in West Virginia, and in Michigan \$1.15, but in New York and Vermont prices were lower. No decreases were noted in any State in the prices of chestnut; the largest increase was in Tennessee and West Virginia, where firsts and seconds rose as much as \$2 per M. Cypress prices improved in all States, while gum remained generally staple except in Mississippi, where firsts and seconds advanced \$1.75. Hickory prices were higher in Wisconsin and West Virginia, remained generally firm in the Southern States, and showed recessions

in Ohio and Indiana. The prices for both plain and quartered oak were characterized by decided gains. The average increase of all the grades probably amounted to over \$1.50. Poplar prices were exceptionally staple. In Louisiana tupelo made an advance in all grades, while hard maple generally, except in Pennsylvania, showed uniformly slight improvement.

A comparison of prices for the third quarter of 1911 with the corresponding quarter of 1910 shows western softwoods generally lower except western hemlock and western white pine; in these there are slight indications of improvement. Eastern softwoods as a whole showed a fairly uniform increase. Nearly all grades of yellow pine, particularly in the Mississippi Valley, made advances. In Georgia, Florida, and South Carolina the conditions only slightly improved, while in North Carolina prices remained uniformly staple. Hemlock in the Lake States changed for the better, but held constant in West Virginia and Pennsylvania. White pine, eastern spruce, and West Virginia spruce showed improvement.

Hardwoods, more than either the western softwoods or the eastern softwoods, showed generally larger and more decided gains over the same period in 1910. The most notable improvements were in the general prices of oak, ash, and chestnut.

1776. The Continental Congress fled from Philadelphia to Lancaster and then to York, where they were captured by the British on September 26th. The British then moved on to Philadelphia, occupying the city on September 26th.

1777. The British occupied Philadelphia from September 26th to December 19th. During this time, the Continental Congress fled to Lancaster and then to York, where they were captured by the British on September 26th.

1778. The British evacuated Philadelphia on December 19th and moved back to York and then to Lancaster. The Continental Congress followed them and fought the Battle of Red Bank on December 19th.

1779. The British evacuated Lancaster on December 19th and moved back to York and then to Lancaster. The Continental Congress followed them and fought the Battle of Red Bank on December 19th.

1780. The British evacuated York on December 19th and moved back to York and then to Lancaster. The Continental Congress followed them and fought the Battle of Red Bank on December 19th.

1781. The British evacuated Lancaster on December 19th and moved back to York and then to Lancaster. The Continental Congress followed them and fought the Battle of Red Bank on December 19th.

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Species.	Line.	Grade.
Cedar, western red.....	1	Beveled siding No. 1, 3" x 6"
Do.....	2	Shop No. 2, 1" and 1 1/2" x 8"
Do.....	3	Shingles, perfection, 18"
Do.....	4	Shingles, extra clear, 5 1/2"-16"
Do.....	5	Star-A-Star, 6 1/2" x 16"
Do.....	6	Mill run
Fir, Douglas.....	7	Flooring No. 1, v. g., 1" x 4"
Do.....	8	Flooring No. 2, v. g., 1" x 4"
Do.....	9	Flooring No. 2, flat, 1" x 4"
Do.....	10	Finish No. 2 and better, 6" and 8"
Do.....	11	Drop siding, No. 2 slash
Do.....	12	Dimension, Com., S181E, 2" x 12"-16"
Do.....	13	Car sills, 5" x 8"-36"
Do.....	14	Timbers, 12" x 12", average 32'
Do.....	15	Crossties, 7" x 9"
Do.....	16	Lath, per M
Do.....	17	Mill run
Fir, white.....	18	Common boards, 6" and 8"
Do.....	19	Lath, per M
Do.....	20	Mill run
Hemlock, western.....	21	Flooring, Nos. 1 and 2, v. g., 1" x 4"
Do.....	22	Finish, Nos. 1 and 2, 5" and wider
Do.....	23	Dimension, No. 1 Com., 2" x 4" to 2" x 8"
Do.....	24	Shiplap, 1"
Do.....	25	Shop No. 1, 1 1/2" x 8" and wider
Do.....	26	Mill run
Larch, western.....	27	Flooring, A and B (Nos. 1 and 2 clear), 1" x 4"
Do.....	28	Finish, A and B (Nos. 1 and 2 clear), 1" x 8"
Do.....	29	Drop siding, A and B (Nos. 1 and 2 clear), 1" x 6"
Do.....	30	Common boards, No. 2, 1" x 8"-16"
Do.....	31	Dimension, No. 1 Com., 2" x 8"-16"
Do.....	32	Lath, per M
Do.....	33	Mill run
Pine, sugar.....	34	Firsts and seconds, clear
Do.....	35	Shop No. 1, 2" x 8" and wider
Do.....	36	Shop No. 2, 2" x 8" and wider
Do.....	37	Mill run
Pine, western white.....	38	Finish, C select, 8"
Do (Idaho white).....	39	Finish, D select, 8"
Do.....	40	Beveled siding, B and better, 4" and 6"
Do.....	41	Beveled siding, C, 4" and 6"
Do.....	42	Common boards, No. 2, 6" and 8"
Do.....	43	Mill run
Pine, western yellow.....	44	Flooring, B and better (Nos. 1 and 2 clear), 4" and 6"-16"
Do (including western pine, California white pine, New Mexico white pine).....	45	Finish, B select and better, 1" x 10"-16"
Do.....	46	Finish, C select, 8"
Do.....	47	Beveled siding, B and better, 4" and 6"
Do.....	48	Beveled siding, C, 4" and 6"
Do.....	49	Shop No. 1, 6/4
Do.....	50	Shop No. 2, 6/4
Do.....	51	Common boards, No. 2, 1" x 8"-16"
Do.....	52	Dimension, No. 1, Com., 2" x 8"-16"
Do.....	53	Lath, No. 1, per M
Do.....	54	Mill run
Redwood.....	55	Clear, 6" to 12", 10' to 20'
Do.....	56	Sappy clear, 6" to 8", 10' to 20'
Do.....	57	Common boards No. 1
Do.....	58	Common boards No. 2
Do.....	59	Crossties, 6" x 8"-8"
Do.....	60	Shingles, No. 1, per M
Do.....	61	Shingles, No. 2, per M
Do.....	62	Mill run
Spruce, Sitka.....	63	Shop No. 1, 6/4
Do (western spruce).....	64	Finish No. 2, clear and better, 1" x 12"
Do.....	65	Flooring, No. 2, clear and better, 1" x 4"
Do.....	66	Beveled siding, B, 3" x 6"
Do.....	67	Common boards, 1" x 12"
Spruce.....	68	Mill run

Line.	Washington.	Oregon.	Idaho.	Montana.	Wyoming.	South Dakota.	California.	Nevada.	Utah.	Colorado.	Arizona.	New Mexico.	Line.
1	\$15.24												1
2	15.00												2
3	2.35												3
4	1.83												4
5	1.42												5
6		\$17.33											6
7	23.27	25.85											7
8	20.10	21.78											8
9	12.55	15.61											9
10	19.28	23.11											10
11	14.05	17.39											11
12	7.73	8.96	\$11.30	\$14.38									12
13	11.54	13.83											13
14	8.67	9.22											14
15	8.16	8.74											15
16	1.23	1.58											16
17	10.65	10.97	12.83	15.00			\$13.24			\$14.00			17
18	7.25	8.67											18
19													19
20		9.55											20
21	23.17												21
22	18.33												22
23	7.32												23
24	7.81												24
25													25
26	9.58												26
27			18.66	21.63									27
28			18.38	25.44									28
29			16.33	21.75									29
30			12.12	15.03									30
31	8.75		10.38	11.64									31
32	1.67			1.94									32
33			10.70	13.97									33
34							55.13						34
35							33.61						35
36							24.66						36
37							31.79						37
38			37.00										38
39			29.25										39
40			26.83										40
41			28.71										41
42			14.87	14.70									42
43			18.33	14.00									43
44	33.00		31.50	41.92				\$39.00					44
45	35.40	36.44	36.33	45.35			42.58	43.17					45
46	27.00	29.44	28.78	34.54				35.13					46
47	20.83		24.50	23.50				24.00					47
48	17.62		19.00	19.92				20.67					48
49	24.47	24.38	23.56	26.63			27.05	25.55					49
50	16.83	16.88	16.00	18.63			19.18	19.94					50
51	13.33	13.50	12.71	16.02			14.02	15.75		11.88			51
52	9.21	11.17	11.25	13.80				16.67		14.63			52
53	2.70		2.62	2.74				3.25					53
54	14.38		13.47	15.31	\$16.75	\$14.90	14.84		\$20.00	14.86		\$12.67	54
55							25.85						55
56							21.97						56
57							16.12						57
58							13.83						58
59							.50						59
60							1.67						60
61							1.13						61
62							19.30						62
63	16.83												63
64	29.25												64
65	26.27												65
66	15.83												66
67	9.40												67
68	15.39	12.13								12.40			68

Species.	Line.	Grade.
Hemlock, Lake States.	1	2" piece stuff, S1S1E, 2" x 4"-16'
Do.	2	Boards, No. 1, S1S, 1" x 8"-16'
Do.	3	Timbers, rough, 4" x 4" to 8" x 8"-16'
Do.	4	Fencing No. 1, S1S, 1" x 6"
Do.	5	Lath No. 1, 1" x 4"
Do.	6	Mill run.
Hemlock, Eastern States.	7	3/4 merch. 4" to 12", 10' to 20'
Do.	8	4/4 merch. 6" and 8"-16'
Do.	9	4/4 merch. 10" and 12"-16'
Do.	10	4/4 merch. boards, 6" and up, S1S, clipped, 12', 14', and 16'
Do.	11	4/4 boards, No. 2, 1" x 4"-12", 6' to 20'
Do.	12	Mill run, mill culls out.
Do.	13	Mill culls.
Do.	14	Mill run.
Pine.	15	Flooring, No. 2, 1" x 4", 10' to 16'
Do (North Carolina)	16	Flooring, No. 3, 1" x 4", 10' to 16'
Do.	17	Dimension (air dried), 2" x 8"-16' and under
Do.	18	Roofers, 1" x 8", D. & M.
Do.	19	Partition No. 1, 13/16" x 3 1/2", 10' to 16'
Do.	20	No. 1 edge 4/4, under 12'
Do.	21	Box edge 4/4, under 12"
Do.	22	Mill run.
Pine, white.	23	Selects C and better, 5/4 (M. L.)
Do.	24	Inch finish, C selects, 10" (M. L.)
Do.	25	Shop No. 1, 8/4 (M. L.)
Do.	26	Shop No. 3, 5/4 (M. L.)
Do.	27	Beveled siding, C 6"-16'
Do.	28	Boards No. 2, 1" x 8"-16'
Do.	29	Boards No. 3, 12", 10' to 20'
Do.	30	Boards No. 4, mixed widths, 10' to 20'
Do.	31	Fencing No. 2, S1S, 6"-16'
Do.	32	Lath No. 1 (W. P.)
Do.	33	Lath No. 1 (mixed)
Do.	34	Mill run.
Pine, yellow.	35	Flooring, B. v. g., 13/16" x 3 1/2"
Do (Mississippi Valley mills).	36	Flooring, No. 2, D. & M., 1" x 4"
Do.	37	Flooring, No. 2, S2S and C. M., 1" x 6"
Do.	38	Flooring, B, flat, 13/16" x 3 1/2"
Do.	39	Finish, B and better, 6" and wider.
Do.	40	Dimension No. 1, S1S1E, 2" x 8"-16'
Do.	41	Com. boards No. 1, S2S, 1" x 10"
Do.	42	Com. boards, No. 2, S2S, 1" x 8"
Do.	43	Com. boards, No. 2, S2S, 1" x 12"
Do.	44	Timbers S1S1E, 6" x 8"-16'
Do.	45	Car siding, B and better, 1" x 4" and 6", 9' to 18'
Do.	46	Com. car lining, No. 1, 1" x 6", 10' to 20'
Do.	47	Lath No. 1, 1" x 4"
Do.	48	Mill run.
Pine, yellow.	49	Finish, B and better, 6" and wider.
Do (Atlantic Coast mills).	50	Flooring, B and better, heart rift, 13/16" x 2 1/2"
Do.	51	Flooring, B and better, sap rift, 13/16" x 2 1/2"
Do.	52	Flooring, B, heart rift, 13/16" x 2 1/2"
Do.	53	Flooring, B, sap rift, 13/16" x 2 1/2"
Do.	54	Flooring, B, sap flat, 13/16" x 3 1/2"
Do.	55	Com. boards, No. 1, S2S, 1" x 10", 10' to 16'
Do.	56	Com. boards, No. 2, S2S, 1" x 10", 10' to 16'
Pine, Merch. grade (sail).	57	Plank and dimensions:
Do.	58	Sizes 2" x 6" to 8" x 8", average 24'
Do.	59	Sizes 2" x 9" to 10" x 10", average 24'
Do.	60	Sizes 2" x 12" to 12" x 12", average 24'
Do.	61	Sizes 2" x 14" to 14" x 14", average 24'
Do.	62	Sizes 2" x 16" to 16" x 16", average 24'
Do.	63	Mill run.
Spruce, Eastern.	64	Merch. frames 9" and under, 24' and under.
Do.	65	Merch. frames 10" and 12", 24' and under.
Do.	66	Merch. random 10" and 12", 10' and up.
Do.	67	Merch. 2" x 7" and under, 10' to 24'
Do.	68	Merch. 2" x 8" and up, 10' to 24'
Do.	69	Lath, 1 1/2"
Do.	70	Mill run.
Spruce, Adirondacks.	71	Mill run, mill culls out.
Do.	72	No. 1 and clear.
Do.	73	No. 2.
Do.	74	No. 3.
Do.	75	Mill culls.
Do.	76	Mill run.
Spruce, West Virginia.	77	Merch. frames 3" x 4" to 8" x 8", 10' to 16'
Do.	78	Merch. frames 2" x 12" x 12" to 12", 10' to 16'
Do.	79	Boards, merch., 1" x 12", 10' to 20'
Do.	80	Boards, box, 1" x 4"-12'
Do.	81	Mill run.

WHOLESALE PRICES OF LUMBER.

Line.	Oklahoma.	Texas.	Arkansas.	Louisiana.	Mississippi.	Alabama.	Missouri.	Florida.	Georgia.	South Caro- lina.	North Caro- lina.	Tennessee.	Kentucky.	Virginia.	Line.
1															1
2															2
3															3
4															4
5															5
6															6
7															7
8															8
9															9
10															10
11															11
12															12
13															13
14															14
15										\$19.88	\$21.10				15
16										15.44	15.25				16
17										10.75	11.72				17
18										12.22	12.54				18
19										23.50	23.62				19
20										19.33	19.11				20
21										11.00	10.75			\$24.04	21
22										14.50	13.42			11.86	22
23														12.80	23
24															24
25															25
26															26
27															27
28															28
29															29
30															30
31															31
32															32
33															33
34															34
35		\$28.83		\$27.58	\$28.50	\$28.33					18.67	\$19.88			35
36		11.96	\$11.94	11.28	10.08	10.43									36
37		11.21	12.23	11.33	11.08	11.44									37
38		19.35	19.95	19.13	18.72	18.92									38
39		25.14	25.63	23.48	22.22	22.05	\$19.67								39
40		12.20	12.77	12.15	11.93	12.29						12.35			40
41		14.83	15.63	14.79	15.94	16.65									41
42		12.29	13.21	11.93	11.84	12.75									42
43		12.73	13.68	13.29	13.03	13.38									43
44		13.00	13.89	12.21	11.94	12.50									44
45		18.67	18.09	18.95	19.88										45
46		14.25	14.56	14.14	16.25										46
47		2.08	2.11	2.08	2.00	2.13									47
48	\$15.82	14.19	15.20	14.36	14.20	14.49	11.67								48
49									\$33.50						49
50									25.67						50
51									33.00						51
52									26.67						52
53								\$18.03	18.92						53
54								16.52	16.46						54
55								12.52	12.04						55
56															56
57								11.75	12.07						57
58								13.06	13.83						58
59								15.64	16.13						59
60								18.25	20.75						60
61								20.38	24.20						61
62								14.82	13.02						62
63															63
64															64
65															65
66															66
67															67
68															68
69															69
70															70
71															71
72															72
73															73
74															74
75															75
76															76
77															77
78															78
79															79
80															80

Species.	Line.	Grade.
Hemlock	1	2" piece stuff, S1S1E, 2" x 4"-16'
Do (Lake States)	2	Boards, No. 1, S1S, 1" x 8"-16'
Do	3	Timbers, rough, 4" x 4" to 8" x 8"-16'
Do	4	Fencing No. 1, S1S, 1" x 6'
Do	5	Lath No. 1, 3"-4'
Do	6	Mill run.
Hemlock, Eastern States	7	8/4 merch. 4" to 12", 10' to 20'
Do	8	4/4 merch. 6" and 8"-16'
Do	9	4/4 merch. 10" and 12"-16'
Do	10	4/4 merch. boards, 6" and up, S1S, clipped, 12', 14', and 16'
Do	11	4/4 boards, No. 2, 1" x 4"-12", 6' to 20'
Do	12	Mill run, mill culls out.
Do	13	Mill culls.
Do	14	Mill run.
Pine	15	Flooring, No. 2, 1" x 4", 10' to 16'
Do (North Carolina)	16	Flooring, No. 3, 1" x 4", 10' to 16'
Do	17	Dimensions (air dried), 2" x 8"-16' and under
Do	18	Roofers, 1" x 8", D. & M.
Do	19	Partition No. 1, 13/16" x 3 3/4", 10' to 16'
Do	20	No. 1 edge 4/4, under 12"
Do	21	Box edge 4/4, under 12"
Do	22	Mill run.
Pine, white	23	Selects C and better, 5/4 (M. L.)
Do	24	Inch finish, C Selects, 10" (M. L.)
Do	25	Shop No. 1, 8/4 (M. L.)
Do	26	Shop No. 3, 5/4 (M. L.)
Do	27	Beveled siding, C, 6"-16'
Do	28	Boards No. 2, 1" x 8"-16'
Do	29	Boards No. 3, 12", 10' to 20'
Do	30	Boards No. 4, mixed widths, 10' to 20'
Do	31	Fencing No. 2, S1S, 6"-16'
Do	32	Lath No. 1 (W. P.)
Do	33	Lath No. 1 (mixed)
Do	34	Mill run.
Pine, yellow	35	Flooring, B, v. g., 13/16" x 3 3/4"
Do (Mississippi Valley Mills)	36	Flooring, No. 2, D. & M., 1" x 4"
Do	37	Flooring, No. 2, S2S and C. M., 1" x 6"
Do	38	Flooring, B, flat, 13/16" x 3 3/4"
Do	39	Finish, B and better, 6" and wider.
Do	40	Dimension No. 1, S1S1E, 2" x 8"-16'
Do	41	Com. boards, No. 1, S2S, 1" x 10"
Do	42	Com. boards, No. 2, S2S, 1" x 8"
Do	43	Com. boards, No. 2, S2S, 1" x 12"
Do	44	Timbers S1S1E, 6" x 8" x 16'
Do	45	Car siding, B and better, 1" x 4" and 6", 9' to 18'
Do	46	Com. car lining, No. 1, 1" x 6", 10' to 20'
Do	47	Lath No. 1, 3"
Do	48	Mill run.
Pine, yellow	49	Finish, B and better, 6" and wider.
Do (Atlantic Coast Mills)	50	Flooring, B and better, heart rift, 13/16" x 2 3/4"
Do	51	Flooring, B and better, sap rift, 13/16" x 2 3/4"
Do	52	Flooring, B, heart rift, 13/16" x 2 3/4"
Do	53	Flooring, B, sap rift, 13/16" x 2 3/4"
Do	54	Flooring, B, sap flat, 13/16" x 3 3/4"
Do	55	Com. boards, No. 1, S2S, 1" x 10", 10' to 16'
Do	56	Com. boards, No. 2, S2S, 1" x 10", 10' to 16'
Pine, yellow, Merch. grade (Sall)	57	Plank and dimensions:
Do	58	Sizes 2" x 6" to 8" x 8", average 24'
Do	59	Sizes 2" x 9" to 10" x 10", average 24'
Do	60	Sizes 2" x 12" to 12" x 12", average 24'
Do	61	Sizes 2" x 14" to 14" x 14", average 24'
Do	62	Sizes 2" x 16" to 16" x 16", average 24'
Do	63	Mill run.
Spruce, Eastern	64	Merch. frames 9" and under, 24' and under.
Do	65	Merch. frames 10" and 12", 24' and under.
Do	66	Merch. random 10" and 12", 10' and up.
Do	67	Merch. 2" x 7" and under, 10' to 24'
Do	68	Merch. 2" x 8" and up, 10' to 24'
Do	69	Lath, 1 1/2"
Do	70	Mill run.
Spruce, Adirondack	71	Mill run, mill culls out.
Do	72	No. 1 and clear.
Do	73	No. 2.
Do	74	No. 3.
Do	75	Mill culls.
Do	76	Mill run.
Spruce, West Virginia	77	Merch. frames 3" x 4" to 8" x 8", 10' to 16'
Do	78	Merch. frames 2" x 12" to 12" x 12", 10' to 16'
Do	79	Boards, merch., 1" x 12", 10' to 20'
Do	80	Boards, box, 1" x 4"-12"
Do		Mill run.

WHOLESALE PRICES OF LUMBER.

[illegible]

Species.	Line.	Grade.
Ash	1	Firsts and seconds, 4/4.
Do.	2	No. 1 common, 4/4.
Do.	3	No. 2 common and better, 4/4 or log run.
Do.	4	Mill run.
Basswood	5	Firsts and seconds, 4/4.
Do.	6	No. 1 common, 4/4.
Do.	7	No. 2 common, 4/4.
Do.	8	Log run.
Do.	9	Mill run.
Beech	10	Firsts and seconds, 4/4.
Do.	11	No. 1 common, 4/4.
Do.	12	Mill run.
Birch, unselected.	13	Firsts and seconds, 4/4.
Do.	14	No. 1 common, 4/4.
Do.	15	No. 2 common, 4/4.
Do.	16	No. 2 common and better, 4/4 or log run.
Do.	17	Mill run.
Chestnut.	18	Firsts and seconds, 4/4.
Do.	19	No. 1 common, 4/4.
Do.	20	No. 2 common and S. W., 4/4.
Do.	21	No. 3 common, 4/4.
Do.	22	Mill run.
Cottonwood.	23	Firsts and seconds, 4/4, 6" to 12"
Do.	24	Boxboards, 4/4, 13" to 17"
Do.	25	No. 1 common, 4/4.
Do.	26	No. 2 common, 4/4.
Do.	27	Mill run.
Cypress.	28	Firsts and seconds clear, 4/4.
Do.	29	Selects, 4/4.
Do.	30	Shop, No. 1, 4/4.
Do.	31	No. 1 common, 4/4, random widths.
Do.	32	No. 2 common, 4/4, random widths.
Do.	33	Mill run.
Cypress, shingles.	34	Bests, 5'.
Do.	35	Primas, 5'.
Elm, rock.	36	Firsts and seconds, 8/4.
Do.	37	No. 1 common and better, 8/4.
Do.	38	No. 2 common and better, 8/4.
Do.	39	Mill run.
Elm, soft.	40	No. 1 common and better, 4/4.
Do.	41	No. 2 common and better, 4/4.
Do.	42	Mill run.
Gum.	43	Firsts and seconds, 4/4, red.
Do.	44	No. 1 common, 4/4, red.
Do.	45	Firsts and seconds, 4/4, sap.
Do.	46	No. 1 common, 4/4, sap.
Do.	47	No. 2 common, 4/4.
Do.	48	Mill run.
Hickory.	49	Firsts and seconds, 8/4.
Do.	50	No. 1 common, 8/4.
Do.	51	No. 2 common, 8/4.
Do.	52	Mill run.
Maple, hard.	53	Firsts and seconds, 4/4.
Do.	54	No. 1 common, 4/4.
Do.	55	Mill run.
Maple, soft.	56	No. 1 common and better, 4/4.
Do.	57	No. 3 common, 4/4.
Do.	58	Log run.
Do.	59	Mill run.
Oak, plain.	60	Firsts and seconds, 4/4.
Do.	61	No. 1 common, 4/4.
Do.	62	No. 2 common, 4/4.
Do.	63	No. 3 common, 4/4.
Do.	64	Mill run.
Oak, red, quartered.	65	Firsts and seconds, 4/4.
Do.	66	No. 1 common, 4/4.
Do.	67	No. 2 common, 4/4.
Do.	68	Mill run.
Oak, white, quartered.	69	Firsts and seconds, 4/4.
Do.	70	No. 1 common, 4/4.
Do.	71	No. 2 common, 4/4.
Do.	72	Mill run.
Poplar.	73	Firsts and seconds, 4/4.
Do.	74	Saps or selects, 4/4.
Do.	75	No. 1 common, 4/4.
Do.	76	No. 2 common, 4/4.
Do.	77	Mill run.
Tupelo (bay poplar).	78	Firsts and seconds clear, random, 4/4.
Do.	79	No. 1 common, random, 4/4.
Do.	80	Mill run.

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Species.	Line.	Grade.
Ash	1	First and seconds, 4/4.
Do	2	No. 1 common, 4/4.
Do	3	No. 2 common and better, 4/4 or log run.
Do	4	Mill run.
Basswood	5	Firsts and seconds, 4/4.
Do	6	No. 1 common, 4/4.
Do	7	No. 2 common, 4/4.
Do	8	Log run.
Do	9	Mill run.
Beech	10	Firsts and seconds, 4/4.
Do	11	No. 1 common, 4/4.
Do	12	Mill run.
Birch, unselected	13	Firsts and seconds, 4/4.
Do	14	No. 1 common, 4/4.
Do	15	No. 2 common, 4/4.
Do	16	No. 2 common and better, 4/4 or log run.
Do	17	Mill run.
Chestnut	18	Firsts and seconds, 4/4.
Do	19	No. 1 common, 4/4.
Do	20	No. 2 common and S. W., 4/4.
Do	21	No. 3 common, 4/4.
Do	22	Mill run.
Cottonwood	23	Firsts and seconds, 4/4, 6" to 12".
Do	24	Boxboards, 4/4, 13" to 17".
Do	25	No. 1 common, 4/4.
Do	26	No. 2 common, 4/4.
Do	27	Mill run.
Cypress	28	Firsts and seconds, clear, 4/4.
Do	29	Selects, 4/4.
Do	30	Shop, No. 1, 4/4.
Do	31	No. 1 common, 4/4, random widths.
Do	32	No. 2 common, 4/4, random widths.
Do	33	Mill run.
Cypress, shingles	34	Bests, 5".
Do	35	Primes, 5".
Elm, rock	36	Firsts and seconds, 8/4.
Do	37	No. 1 common and better, 8/4.
Do	38	No. 2 common and better, 8/4.
Do	39	Mill run.
Elm, soft	40	No. 1 common and better, 4/4.
Do	41	No. 2 common and better, 4/4.
Do	42	Mill run.
Gum	43	Firsts and seconds, 4/4, red.
Do	44	No. 1 common, 4/4, red.
Do	45	Firsts and seconds, 4/4, sap.
Do	46	No. 1 common, 4/4, sap.
Do	47	No. 2 common, 4/4.
Do	48	Mill run.
Hickory	49	Firsts and seconds, 8/4.
Do	50	No. 1 common, 8/4.
Do	51	No. 2 common, 8/4.
Do	52	Mill run.
Maple, hard	53	Firsts and seconds, 4/4.
Do	54	No. 1 common, 4/4.
Do	55	Mill run.
Maple, soft	56	No. 1 common and better, 4/4.
Do	57	No. 3 common, 4/4.
Do	58	Log run.
Do	59	Mill run.
Oak, plain	60	Firsts and seconds, 4/4.
Do	61	No. 1 common, 4/4.
Do	62	No. 2 common, 4/4.
Do	63	No. 3 common, 4/4.
Do	64	Mill run.
Oak, red, quartered	65	Firsts and seconds, 4/4.
Do	66	No. 1 common, 4/4.
Do	67	No. 2 common, 4/4.
Do	68	Mill run.
Oak, white, quartered	69	Firsts and seconds, 4/4.
Do	70	No. 1 common, 4/4.
Do	71	No. 2 common, 4/4.
Do	72	Mill run.
Poplar	73	Firsts and seconds, 4/4.
Do	74	Saps or selects, 4/4.
Do	75	No. 1 common, 4/4.
Do	76	No. 2 common, 4/4.
Do	77	Mill run.
Tupelo (bay poplar)	78	Firsts and seconds, clear, random, 4/4.
Do	79	No. 1 common, random, 4/4.
Do	80	Mill run.

Line.	Iowa.	Ohio.	Indiana.	Illinois.	Michigan.	Wisconsin.	Pennsylvania.	New Jersey.	New York.	Connecticut.	Massachusetts.	New Hampshire.	Vermont.	Maine.	Line.
1		\$43.67	\$40.88	\$41.25	\$40.67	\$37.30			\$46.00						1
2		29.70	25.63	25.00	28.67	23.81			26.09						2
3		17.86	19.10	17.38	25.78	21.49							\$17.00		3
4		25.00	30.00		22.29	18.88	\$26.48		24.70	\$20.00	\$21.50		21.40		4
5		33.00	32.38		36.19	34.19			33.00				28.33		5
6		22.67	22.29		26.38	22.59							20.00		6
7		15.20	15.17		14.83	13.19			19.67						7
8		20.40	22.50		24.32	22.13	21.75		20.44				19.33		8
9					19.80	19.45	21.50		22.63		19.33		19.30		9
10		21.43	22.60		23.20				23.83				20.33		10
11		17.50	16.67		15.83				17.00						11
12		14.44	16.56		13.51	13.17	14.96		14.43	15.83	15.50		14.75	\$13.67	12
13					34.45	34.41			35.88				31.75		13
14					21.73	19.14			23.79				24.33		14
15					14.50	11.25			13.67						15
16					22.56	20.53	20.00		18.67						16
17					16.71	17.08	20.75		20.92	15.58	15.40	\$15.67	15.89		17
18		39.60	41.00				36.00								18
19		26.83	27.00				26.40	\$31.25							19
20		15.40	15.25				16.70								20
21		13.33													21
22		19.33					17.45	23.50	19.20	19.58	18.71	18.17			22
23															23
24															24
25															25
26															26
27	\$17.50		18.00												27
28															28
29															29
30															30
31															31
32															32
33															33
34															34
35															35
36						34.20									36
37						28.80									37
38					23.82	22.40									38
39						17.85									39
40		22.75	24.82		29.33	26.00									40
41		19.50	19.45		25.00	19.38									41
42	17.17	18.50	18.33		18.38	15.33									42
43			31.33												43
44			18.25												44
45															45
46															46
47															47
48				16.08											48
49		49.50	47.54	46.40											49
50		30.57	30.42	32.00				54.17							50
51		18.90	18.75	24.38			26.50	38.75		23.00					51
52		23.25	31.58												52
53		26.13	25.70		28.76	26.68	26.00		26.33				30.33		53
54		19.71	19.56		21.25	17.52	16.67		18.63				23.67		54
55		17.30	20.09		19.13	16.02	17.20		19.36	17.10	19.00		16.85		55
56		23.40	24.67			21.58									56
57					8.33	7.58									57
58		19.25	17.70		18.20	16.05									58
59	15.83	13.13	13.00		16.16	14.25	16.50		17.81	14.00	14.40		14.25		59
60		42.75	41.67	40.60		45.22	34.50	43.33							60
61		28.14	27.43	27.50		31.65	26.14								61
62		20.91	17.77	16.13		18.69	16.00								62
63		12.10	11.13	12.67		9.11									63
64		21.00	28.20			27.49	22.18	30.00	25.20	21.23	22.14	21.25		20.67	64
65		53.86	54.00												65
66		33.00	34.64												66
67		20.50	19.29												67
68															68
69		73.56	70.36												69
70		45.81	43.05												70
71		26.14	23.36												71
72															72
73		51.87	50.79												73
74		38.80	39.83												74
75		32.00	29.46												75
76		21.60	18.90	17.67											76
77		32.88					22.35								77
78															78
79															79
80															80

Walter Mulford

Issued March 8, 1912.

U. S. DEPARTMENT OF AGRICULTURE,
FOREST SERVICE.

HENRY S. GRAVES, Forester.

RECORD OF WHOLESALE PRICES
OF LUMBER.

(PER 1,000 FEET B. M.)

BASED ON ACTUAL SALES MADE F. O. B. MILL FOR
EACH QUARTER OF THE CALENDAR YEAR 1911.

3

The Forest Service is engaged in many investigations of interest to lumber manufacturers. A copy of any of the following recent reports may be obtained by addressing the Editor and Chief, Division of Publications, United States Department of Agriculture, Washington, D. C.:

Forest Service Circular 180—Lumber Saved by Using Odd Lengths.

Forest Service Circular 187—Manufacture and Utilization of Hickory.

Forest Service Circular 189—Strength Values for Structural Timbers.

Forest Service Circular 192—The Prevention of Sap Stain in Lumber.

Division of Publications Circular 11—List of Available Publications of the Forest Service.

PREFATORY NOTE.

The Forest Service has two main purposes in collecting and compiling this record of f. o. b. mill prices: First, to have a continuous statistical record of such prices of the various commercial woods; and, second, to show, in contrast to market prices—which include the important items of freight charges and selling costs—just what the manufacturers of lumber receive for their product at the mill. The prices given are wholesale, based on actual sales f. o. b. mill, for delivery outside of local territory. Only a few representative grades and the mill run are included. By mill run is meant the average of all grades of lumber produced. The record is compiled by States, and is made up from reports received from approximately 3,000 of the largest manufacturers scattered throughout the country. It is published quarterly.

The Forest Service wishes to acknowledge the courtesy of the manufacturers for their prompt and efficient cooperation. Their assistance has been of great value in making the record complete, accurate, and promptly available for distribution.

NOTE.—For this issue of the record a departure has been made from the usual form of compilation. In addition to the average prices for the last quarter of the calendar year 1911 there are also reproduced the average prices of the three preceding quarters. This has been done to permit of a comparison for the four periods of the year.

Figures in **bold-faced** type indicate an average for the last two quarters.

SUMMARY.

Lumber prices for the last three months of 1911 were generally lower than for any of the preceding quarters. In some cases, however, the period showed important advances.

The prices obtained for Douglas fir, following an almost constant decline during the year, were lowest during the fourth quarter. Flooring and finish in Washington and Oregon dropped \$1 to \$4 under prices of the spring and summer. The lower grades do not show much change during the latter half of the year, and timbers and crossties in particular remained nearly stationary. Western hemlock prices reached bottom for the year in the fourth quarter. Flooring Nos. 1 and 2 was \$4.50 lower than in the third quarter, and the other grades fell about \$1 during the same period. Sugar pine sold at prices lower by \$2 for shop No. 1 and by \$5 for Nos. 1 and 2 clear than in the third quarter. Idaho pine prices for the last quarter were the lowest for the year. The decline from the third quarter prices amounted to from \$3 to \$5 in finish, C and D select, and from \$2 to \$3 in beveled siding, B and C. Common boards, however, show a rise of nearly one-half dollar. Western pine prices were generally lower for the fourth quarter, but while some items sold for from \$1 to \$3 less, other items suffered no decline. Redwood clears were lower by about \$2, but common boards and crossties sold at better prices during October, November, and December than during the first six months of the year. Sitka spruce prices show little change during the latter half of the year.

Except in Mississippi, yellow pine sold generally in the Mississippi Valley States for the lowest prices of the year. In Texas and Arkansas the fall amounted to from \$1 to \$2 in flooring, finish, etc., and in Louisiana to somewhat less. In Mississippi the general average for the fourth quarter about equaled that for the third. Alabama prices suffered a decline of from \$0.50 to \$2. In Florida and Georgia yellow pine prices improved during the last few months of the year, and the grades of flooring show an advance for the fourth quarter of from \$2 to \$6 over the third; common boards of from \$1 to \$2; plank and dimension stock, \$0.50 to \$4. North Carolina pine prices also improved in the last few months of 1911, the advance averaging somewhat less than \$1 in South Carolina and North Carolina. In West Virginia spruce, merchantable frames and boards sold at from \$1 to \$2 in advance of the prices for the preceding months of the year. Adirondack and New England spruce and hemlock generally brought the lowest prices for the year during the fourth quarter. Hemlock in Wisconsin was lower by from 25 to 50 cents; in Michigan higher by about the same amounts. White pine prices were the lowest for the entire year, the decline being more marked in Minnesota than in Wisconsin or Michigan, the latter holding up the best. It is noticeable that prices obtained for No. 4 boards in the Lake States were higher for the last quarter of the year.

Prices of ash fell off by amounts up to \$5 and \$6 under third quarter prices, but in very many cases sales were made at prices equal to those obtained during the first three months of the year. In basswood most items were lower by a few cents to \$3, but in West Virginia, firsts and seconds sold at \$3 and No. 1 common at \$0.67 over third quarter prices, while in Michigan and Wisconsin firsts and seconds fell off about \$1; No. 1 common, from \$0.25 to \$1.50; while No. 2 common rose \$2 in Michigan and

\$1.25 in Wisconsin. Beech sold at lower figures in West Virginia and higher in Indiana. In Michigan firsts and seconds rose \$0.50 and No. 1 common over \$2.

Birch prices declined slightly throughout the country. In West Virginia the decline amounted to as much as \$4 in firsts and seconds; and in New York prices fell by from \$1 to \$2. However, in Michigan and Wisconsin there were almost no changes in prices reported for sales of graded lumber, but the mill-run average rose \$1 in Michigan, while in Wisconsin the mill-run average fell off \$1.50 from third-quarter reports.

Chestnut prices were about equal to those of the third quarter. In Virginia firsts and seconds advanced \$1, while No. 1 common declined \$1. In Ohio prices were \$0.50 to \$2 lower. In cottonwood items, box boards suffered no decline in Mississippi, but declined nearly \$3 in Arkansas and nearly \$2 in Louisiana. Firsts and seconds fell off \$1.50 in Arkansas and rose \$2.50 in Louisiana and \$1 in Missouri. No. 1 and No. 2 common rose by about \$1 in Arkansas, Louisiana, and Mississippi.

Cypress was generally sold for lower prices in the Mississippi Valley States, exceptions being No. 2 common in Arkansas and selects in Louisiana. In Florida cypress firsts and seconds, selects, and No. 2 common rose by from \$1 to \$1.50 over the third quarter prices, reaching the highest point for the year. Shop No. 1 and No. 1 common sold for the lowest prices reported throughout the year.

In oak many changes may be noted. In Arkansas, Louisiana, Mississippi, North Carolina, Tennessee, and Kentucky fourth quarter prices held well with those obtained during the third quarter, but in Indiana, Alabama, Missouri, and Virginia firsts and seconds fell off by from \$2 to \$4, No. 1 common by from \$1.50 to \$3.25, and No. 2 common by from \$0.50 to \$1. In West Virginia oak sold for the highest prices reported in any quarter. Firsts and seconds rose by \$1.50 over the third quarter and No. 1 common by \$1.

The prices of poplar suffered no decline in the last three months of the year in Tennessee, Kentucky, and North Carolina. In Virginia the prices obtained for poplar were the lowest of the year. Compared with third quarter prices, firsts and seconds fell off \$4, saps \$3, No. 1 common \$2.50, No. 2 common \$3. In West Virginia poplar prices touched the highest point of the year. Firsts and seconds and saps rose \$1 over third quarter prices, and No. 1 common rose \$2. In Ohio and Indiana poplar prices suffered no decline except in the case of saps, which fell off \$2 in Ohio, \$1 in Indiana, and No. 1 common, which fell off \$1 in Indiana.

Species.	Line No.	Grade.
Cedar, Western Red	1	Beveled siding No. 1, $\frac{3}{4}$ " x 6".
Do.	2	Shop No. 2, 1" and $1\frac{1}{2}$ " x 8".
Do.	3	Shingles, perfection, 18".
Do.	4	Shingles, extra clear, $5\frac{1}{2}$ "-16".
Do.	5	Star-A-Star, $6\frac{1}{2}$ "-16".
Do.	6	Mill run.
Fir, Douglas	7	Flooring No. 1, v. g., 1" x 4".
Do.	8	Flooring No. 2, v. g., 1" x 4".
Do.	9	Flooring No. 2, flat, 1" x 4".
Do.	10	Finish No. 2 and better, 6" and 8".
Do.	11	Drop siding, No. 2 slash.
Do.	12	Dimension, Com., S1S1E, 2" x 12"-16".
Do.	13	Car sills, $5\frac{1}{2}$ " x 8"-36".
Do.	14	Timbers, $12\frac{1}{2}$ " x 12", average 32".
Do.	15	Crossties, 7" x 9".
Do.	16	Lath, per M.
Do.	17	Mill run.
Fir, White	18	Common boards, 6" and 8".
Do.	19	Lath, per M.
Do.	20	Mill run.
Hemlock, Western	21	Flooring Nos. 1 and 2, v. g., 1" x 4".
Do.	22	Finish Nos. 1 and 2, 5" and wider.
Do.	23	Dimension, No. 1, Com., 2" x 4" to 2" x 8".
Do.	24	Shiplap, 1".
Do.	25	Shop No. 1, $1\frac{1}{2}$ " x 8" and wider.
Do.	26	Mill run.
Larch, Western	27	Flooring, A and B (Nos. 1 and 2 clear), 1" x 4".
Do.	28	Finish, A and B (Nos. 1 and 2 clear), 1" x 8".
Do.	29	Drop siding, A and B (Nos. 1 and 2 clear), 1" x 6".
Do.	30	Common boards No. 2, 1" x 8"-16".
Do.	31	Dimension No. 1, Com., 2" x 8"-16".
Do.	32	Lath, per M.
Do.	33	Mill run.
Pine, Sugar	34	Firsts and seconds, clear.
Do.	35	Shop No. 1, 2" x 8" and wider.
Do.	36	Shop No. 2, 2" x 8" and wider.
Do.	37	Mill run.
Pine, Western White	38	Finish, C select, 8".
Do. (Idaho White)	39	Finish, D select, 8".
Do.	40	Beveled siding, B and better, 4" and 6".
Do.	41	Beveled siding, C, 4" and 6".
Do.	42	Common boards, No. 2, 6" and 8".
Do.	43	Mill run.
Pine, Western Yellow	44	Flooring, B and better (Nos. 1 and 2 clear), 4" and 6"-16".
Do. (including Western Pine, California White Pine, New Mexico White Pine).	45	Finish, B select and better, 1" by 10"-16".
Do.	46	Finish, C select, 8".
Do.	47	Beveled siding, B and better, 4" and 6".
Do.	48	Beveled siding, C, 4" and 6".
Do.	49	Shop No. 1, 6/4.
Do.	50	Shop No. 2, 6/4.
Do.	51	Common boards No. 2, 1" x 8"-16".
Do.	52	Dimension, No. 1, Com., 2" x 8"-16".
Do.	53	Lath No. 1, per M.
Do.	54	Mill run.
Redwood	55	Clear, 6" to 12", 10' to 20'.
Do.	56	Sappy clear, 6" to 8", 10' to 20'.
Do.	57	Common boards No. 1.
Do.	58	Common boards No. 2.
Do.	59	Crossties, 6" x 8"-8'.
Do.	60	Shingles No. 1, per M.
Do.	61	Shingles No. 2, per M.
Do.	62	Mill run.
Spruce, Sitka	63	Shop No. 1, 6/4.
Do. (Western Spruce)	64	Finish No. 2, clear and better, 1" x 12".
Do.	65	Flooring No. 2, clear and better, 1" x 4".
Do.	66	Beveled siding, B, $\frac{3}{4}$ " x 6".
Do.	67	Common boards, 1" x 12".
Do.	68	Mill run.

WHOLESALE PRICES OF LUMBER.

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Line Numbers Refer to Grades Listed on Page 6.

Line No.	CALIFORNIA.				OREGON.				WASHINGTON.				Line No.
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1					\$17.75				\$17.49	\$16.87	\$15.24	\$15.61	1
2									15.75	13.96	15.00	13.91	2
3									2.58	2.45	2.35	2.33	3
4									2.01	1.85	1.83	1.80	4
5								\$1.88	1.60	1.51	1.42	1.42	5
6						\$16.00	\$17.33	15.00		13.16		10.52	6
7					28.47	26.85	25.85	24.43	24.74	24.10	23.27	22.05	7
8				\$24.33	24.70	22.38	21.78	21.31	21.68	20.79	20.10	19.01	8
9					16.20	16.40	15.61	15.66	14.26	13.99	12.55	12.11	9
10					22.37	22.96	23.11	21.41	21.56	20.34	19.28	19.30	10
11					19.71	18.01	17.39	17.05	16.79	15.24	14.05	13.00	11
12	\$13.83			13.50	9.93	9.59	8.96	8.71	8.50	8.33	7.73	7.70	12
13					16.60	15.42	13.83	15.31	12.57	11.83	11.54	11.37	13
14					10.40	10.29	9.22	9.21	9.52	9.31	8.67	8.68	14
15					9.85	9.17	8.74	8.56	9.17	8.71	8.16	8.30	15
16				2.41	1.47	1.70	1.58	1.49	1.26	1.24	1.23	1.25	16
17		\$13.24		12.17	11.52	11.31	10.97	10.57	11.35	10.88	10.05	10.90	17
18					9.31		8.67		7.82	7.82	7.25	7.15	18
19										8.00			19
20							9.55						20
21									21.70	22.50	23.17	18.70	21
22									21.00	20.62	18.33	17.58	22
23									7.40	8.00	7.32	7.00	23
24									8.47	8.58	7.81	7.95	24
25									15.75				25
26						11.33		9.90	10.28	9.08	9.58	9.85	26
27										21.00			27
28													28
29										21.00			29
30										10.83			30
31										9.17	8.75	8.88	31
32											1.67		32
33									11.75				33
34		49.50	55.13	50.15									34
35		32.17	33.61	31.62									35
36		22.50	24.66	21.30									36
37													37
38													38
39													39
40													40
41													41
42													42
43													43
44	\$43.95				43.61				44.52		33.00	28.33	44
45		43.56	42.58	46.39	36.08		36.44	36.80	38.94		35.40		45
46		37.67		38.89			29.44	28.16	33.45	30.75	27.00	28.38	46
47		24.75				22.00			22.25	21.12	20.83	20.15	47
48		21.53							20.17	19.00	17.62	16.80	48
49	29.67	26.17	27.05	27.21	25.75	25.25	24.38	25.16	25.17	24.90	24.47	24.00	49
50	20.62	19.41	19.18	17.64	18.08	17.50	16.88	16.33	18.67	17.10	16.83	16.36	50
51		13.18	14.02	13.70	14.42	14.50	13.50	12.58	13.80	13.86	13.33	12.00	51
52		14.00			11.75	11.87	11.17		10.37	9.58	9.21	9.60	52
53		2.27							2.96	2.74	2.70	2.78	53
54			14.84	14.75				12.86		12.58	14.38	14.19	54
55	23.08	26.03	25.85	23.93									55
56	18.92	20.64	21.97	19.44									56
57	10.67	12.96	16.12	14.03									57
58	7.42	10.13	13.83	12.19									58
59	11.12	11.33	.50	12.37									59
60	1.50	1.50	1.67	1.56									60
61	1.03	.96	1.13	1.06									61
62	13.92	17.38	19.30	14.78									62
63					18.50	17.13			18.25	18.87	16.83	16.75	63
64					28.75	31.00			32.75	29.60	29.25	31.95	64
65								28.33	30.67	29.33	26.27	29.67	65
66					18.65	19.25			17.50	16.62	15.83	14.25	66
67					11.72	12.00			9.67	9.50	9.40	9.30	67
68							12.13	13.00	15.50	13.85	15.39	14.04	68

Line No.	IDAHO.				MONTANA.				WYOMING.		SOUTH DAKOTA.		Line No.
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	July, Aug., Sept.	Oct., Nov., Dec.	July, Aug., Sept.	Oct., Nov., Dec.	
1													1
2													2
3													3
4													4
5													5
6													6
7													7
8													8
9													9
10													10
11													11
12			\$11.30			\$13.38	\$14.38						12
13													13
14													14
15													15
16													16
17			12.83	\$10.74			15.00	\$15.33					17
18	\$12.25	\$11.50		11.31									18
19													19
20	10.75	11.50		11.29									20
21													21
22													22
23													23
24													24
25													25
26													26
27		24.47	18.66		\$23.41	22.19	21.63	18.57					27
28			18.38		26.68	25.99	35.44	22.91					28
29			16.33		23.81	22.06	21.75	16.98					29
30	12.00		12.12	12.00	15.78	14.72	15.03	13.63					30
31		9.42	10.38	10.52	11.69	11.28	11.64	11.18					31
32					1.86	1.75	1.94	1.44					32
33		10.12	10.70	10.87	12.87	12.60	13.97	13.74					33
34													34
35													35
36													36
37													37
38	34.00	35.00	37.00	33.91									38
39	28.00	26.00	29.25	24.35									39
40	23.58	25.33	26.83	24.80									40
41	22.38	21.46	23.71	20.87									41
42	18.17	16.29	14.87	15.29			14.70						42
43	15.17	17.30	18.33	17.19			14.00						43
44	36.10	34.75	31.50	30.33	37.40	37.72	41.92						44
45	44.87	45.50	36.33		40.64	42.35	45.35	44.41					45
46	30.90	27.60	28.78	28.60	30.82	33.71	34.54	34.75					46
47	23.50	23.50	24.50		23.60	23.60	23.50	22.67					47
48	21.08												

Line Numbers Refer to Grades Listed on Page 6.

Line No.	NEVADA.		UTAH.		COLORADO.				NEW MEXICO.		Line No.
	July, Aug., Sept.	Oct., Nov., Dec.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	July, Aug., Sept.	Oct., Nov., Dec.	
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13											13
14											14
15											15
16											16
17						\$15.00	\$14.00				17
18											18
19											19
20		\$13.36									20
21											21
22											22
23											23
24											24
25											25
26											26
27											27
28											28
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36											36
37											37
38											38
39											39
40											40
41											41
42											42
43											43
44	\$39.00										44
45	43.17										45
46	35.13										46
47	24.00				\$26.25						47
48	20.67										48
49	25.55									\$23.67	49
50	19.94										50
51	15.75				12.50	13.17	11.88	\$13.00		14.00	51
52	16.67				14.25	14.00	14.63	14.83		14.67	52
53	3.25				3.85	3.53					53
54	15.17	\$20.00	\$21.50		13.70	13.73	14.86	13.94	\$12.67	13.75	54
55											55
56											56
57											57
58											58
59											59
60											60
61											61
62											62
63											63
64											64
65											65
66											66
67											67
68							12.40				68

Species.	Line No.	Grade.	OKLAHOMA.	
			July, Aug., Sept.	Oct., Nov., Dec.
Hemlock (Lake States).....	1	2" piece stuff, S1S1E, 2" x 4'-16'		
Do.....	2	Boards, No. 1, S1S, 1" x 8'-16'		
Do.....	3	Timbers, rough, 4" x 4" to 8" x 8'-16'		
Do.....	4	Fencing No. 1, S1S, 1" x 6'		
Do.....	5	Lath No. 1, 3"-4"		
Do.....	6	Mill run.....		
Hemlock (Eastern States).....	7	8/4 merch. 4" to 12", 10' to 20'		
Do.....	8	4/4 merch. 6" and 8"-16'		
Do.....	9	4/4 merch. 10" and 12"-16'		
Do.....	10	4/4 merch. boards, 6" and up, S1S, clipped, 12'-16'		
Do.....	11	4/4 boards, No. 2, 1" x 4'-12", 6'-20'		
Do.....	12	Mill run, mill culls out.....		
Do.....	13	Mill culls.....		
Do.....	14	Mill run.....		
Pine, North Carolina.....	15	Flooring, No. 2, 1" x 4" x 10'-16'		
Do.....	16	Flooring, No. 3, 1" x 4" x 10'-16'		
Do.....	17	Dimension (air dried), 2" x 8"-16' and under.....		
Do.....	18	Roofers, 1" x 8", D. & M.....		
Do.....	19	Partition No. 1, 13/16" x 3 1/2", 10'-16'		
Do.....	20	No. 1 edge 4/4, under 12"		
Do.....	21	Box edge 4/4, under 12"		
Do.....	22	Mill run.....		
Pine, White.....	23	Selects C and better, 5/4 (M. L.).....		
Do.....	24	Inch finish, C selects, 10" (M. L.).....		
Do.....	25	Shop No. 1, 3/4 (M. L.).....		
Do.....	26	Shop No. 3, 5/4 (M. L.).....		
Do.....	27	Beveled siding, C, 6" x 16'		
Do.....	28	Boards No. 2, 1" x 8"-16'		
Do.....	29	Boards No. 3, 12", 10'-20'		
Do.....	30	Boards No. 4, mixed widths, 10'-20'		
Do.....	31	Fencing No. 2, S1S, 6" x 16'		
Do.....	32	Lath No. 1 (W. P.).....		
Do.....	33	Lath No. 1 (mixed).....		
Do.....	34	Mill run.....		
Pine, Yellow.....	35	Flooring, B, v. g. 13/16" x 3 1/2"		
Do (Mississippi Valley Mills).....	36	Flooring, No. 2, D. & M., 1" x 4"		
Do.....	37	Flooring, No. 2, S2S and C. M., 1" x 6"		
Do.....	38	Flooring, B, flat, 13/16" x 3 1/2"		
Do.....	39	Finish, B and better, 6" and wider.....		
Do.....	40	Dimension No. 1, S1S1E, 2" x 8'-16'		\$9.83
Do.....	41	Com. boards No. 1, S2S, 1" x 10"		13.50
Do.....	42	Com. boards, No. 2, S2S, 1" x 8"		10.50
Do.....	43	Com. boards, No. 2, S2S, 1" x 12"		11.44
Do.....	44	Timbers S1S1 E, 6" x 8'-16'		14.08
Do.....	45	Car siding, B and better, 1" x 4' and 6" x 9'-18'		
Do.....	46	Com. car lining, No. 1, 1" x 6" x 10'-20'		
Do.....	47	Lath No. 1, 3"		
Do.....	48	Mill run.....	\$15.82	13.38
Pine, Yellow.....	49	Finish, B and better. 6" and wider.....		
Do (Atlantic Coast Mills).....	50	Flooring, B and better, heart rift, 13/16" x 2 1/2"		
Do.....	51	Flooring, B and better, sap rift, 13/16" x 2 1/2"		
Do.....	52	Flooring, B, heart rift, 13/16" x 2 1/2"		
Do.....	53	Flooring, B, sap rift, 13/16" x 2 1/2"		
Do.....	54	Flooring, B, sap flat, 13/16" x 3 1/2"		
Do.....	55	Com. boards, No. 1, S2S, 1" x 10" x 10'-16'		
Do.....	56	Com. boards, No. 2, S2S, 1" x 10" x 10'-16'		
		Plank and dimensions:		
Pine, Yellow, merch. grade (Sall).....	57	Sizes 2" x 6" to 8" x 8", average 24'		
Do.....	58	Sizes 2" x 9" to 10" x 10", average 24'		
Do.....	59	Sizes 2" x 12" to 12" x 12", average 24'		
Do.....	60	Sizes 2" x 14" to 14" x 14", average 24'		
Do.....	61	Sizes 2" x 16" to 16" x 16", average 24'		
Do.....	62	Mill run.....		
Spruce (Eastern).....	63	Merch. frames 9" and under, 24' and under.....		
Do.....	64	Merch. frames 10" and 12", 24' and under.....		
Do.....	65	Merch. random 10" and 12", 10' and up.....		
Do.....	66	Merch. 2" x 7" and under, 10' to 24'		
Do.....	67	Merch. 2" x 8" and up, 10' to 24'		
Do.....	68	Lath, 1 1/2"		
Do.....	69	Mill run.....		
Spruce (Adirondack).....	70	Mill run, mill culls out.....		
Do.....	71	No. 1 and clear.....		
Do.....	72	No. 2.....		
Do.....	73	No. 3.....		
Do.....	74	Mill culls.....		
Do.....	75	Mill run.....		
Spruce (West Virginia).....	76	Merch. frames 3" x 4" to 8" x 8", 10'-16'		
Do.....	77	Merch. frames 2" x 12" to 12" x 12", 10'-16'		
Do.....	78	Boards, merch., 1" x 12", 10'-20'		
Do.....	79	Boards, box, 1" x 4'-12'		
Do.....	80	Mill run.....		

Line No.

[illegible]

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Line Numbers Refer to Grades Listed on Page 10.

Line No.	FLORIDA.				GEORGIA.				SOUTH CAROLINA.				Line No.
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
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14													14
15									\$19.20	\$18.75	\$19.88	\$19.90	15
16									15.08	15.00	15.44	16.10	16
17									10.63	12.17	10.75	11.00	17
18									11.38	11.08	12.22	11.92	18
19									22.55		23.50	23.25	19
20									21.46	22.10	19.33	23.25	20
21									10.06	11.12	11.00	10.63	21
22									13.45	13.25	14.50	14.26	22
23													23
24													24
25													25
26													26
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47													47
48													48
49	\$21.35	\$20.78				\$19.00		\$22.83					49
50		39.83			\$44.00	39.50	\$33.50						50
51		27.83			28.75	27.41	25.67	28.33					51
52					38.16	38.00	33.00	39.00					52
53					28.00	28.00	26.67	30.33					53
54	19.50	18.42	\$18.03	\$20.40	18.00	18.75	18.92	20.20		20.00			54
55	17.38	16.90	16.52	18.33	17.25	16.67	16.46	17.13					55
56	12.70	11.93	12.52		11.88	11.93	12.04	14.00					56
57	11.44	11.70	11.75	14.67	11.80	12.95	12.07	12.69	14.63	13.50			57
58	11.60	13.25	13.06		13.30	14.50	13.83	14.92	14.91	14.00			58
59	15.00	15.75	15.64	19.50	16.60	16.88	16.13	16.94	16.69	15.50			59
60	19.25	18.00	18.25		19.50	20.70	20.75	19.06	20.82				60
61	22.00	21.33	20.38		22.60	23.50	24.20	24.30	24.21				61
62	13.52	14.51	14.82	15.55	13.17	12.98	13.02	14.37	15.83			15.67	62
63													63
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WHOLESALE PRICES OF LUMBER.

Line Numbers Refer to Grades Listed on Page 10.

Line No.	NORTH CAROLINA.				TENNESSEE.				KENTUCKY.				Line No.
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
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7					\$12.75	\$12.87			\$15.00	\$15.50			7
8					13.68	13.84			12.87				8
9					12.87	13.93		\$12.00					9
10													10
11													11
12													12
13													13
14						11.31		12.47				\$14.73	14
15	\$20.07	\$20.17	\$21.10	\$20.83									15
16	14.98	15.80	15.25	16.51									16
17	11.15	12.06	11.72	12.14									17
18	11.96	12.20	12.54	13.39									18
19	22.77	23.05	23.62	24.50									19
20	19.67	18.92	19.11	20.31									20
21	10.14	10.25	10.75	11.65									21
22	13.38	13.21	13.42	13.95									22
23													23
24						62.00							24
25	50.50					55.00							25
26	25.00												26
27													27
28	23.50					23.50							28
29						20.00							29
30													30
31						19.00							31
32						3.37							32
33						3.00							33
34	19.80	18.00	18.67	18.83	19.20	17.50	\$19.38	19.50					34
35													35
36													36
37													37
38													38
39													39
40							12.35	13.04					40
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Line Numbers Refer to Grades Listed on Page 10.

Line No.	VIRGINIA.				WEST VIRGINIA.				MARYLAND.				Line No.
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
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8					\$15.80	\$15.25	\$15.50	\$16.50					8
9					14.64	14.92	14.55	15.60					9
10					16.02	16.25	16.20	17.42					10
11					14.88	15.38		14.00					11
12					11.38	11.36	11.60	11.83					12
13					14.81	14.79	15.92	15.00					13
14					6.33	6.83	6.00	6.50					14
15					14.83	14.08		15.08					15
16		\$21.00		\$13.75					\$21.87				16
17	\$14.83			23.13					18.75				17
18	12.05	12.50		18.00					15.75	\$15.50			18
19	11.25	11.60		12.08					13.20				19
20	22.41			15.63					25.50				20
21	20.33	24.78	\$24.64	23.83									21
22	10.57	11.78	11.86	11.32					13.25				22
23	13.12	13.00	12.80	13.24					14.25	12.12	\$12.50		23
24													24
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33													33
34				18.75	18.81								34
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76					17.63	17.70	17.38	18.25					76
77					20.25	19.50	20.25	21.50					77
78					21.75	20.33	21.33	22.25					78
79					14.30	14.37	15.00	14.63					79
80					17.75	17.32		16.83					80

[illegible]

Line Numbers Refer to Grades Listed on Page 10.

[illegible]

Line Numbers Refer to Grades Listed on Page 10.

Line No.	CONNECTICUT.				RHODE ISLAND.		NEW JERSEY.		DELAWARE.				Line No.
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	July, Aug., Sept.	Oct., Nov., Dec.	July, Aug., Sept.	Oct., Nov., Dec.	July, Aug., Sept.	Oct., Nov., Dec.			
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14	\$16.54	\$16.00	\$17.00	\$14.50									14
15													15
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33													33
34	18.08	20.11	18.32	19.50		\$18.50							34
35													35
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63								\$28.17		\$15.63			63
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Species.	Line No.	Grade.	OKLAHOMA.	
			July, Aug., Sept.	Oct., Nov., Dec.
Ash.....	1	Firsts and seconds 4/4.....		\$31.33
Do.....	2	No. 1 common 4/4.....		17.33
Do.....	3	No. 2 common and better 4/4 or log run.....		9.67
Do.....	4	Mill run.....		
Basswood.....	5	Firsts and seconds 4/4.....		
Do.....	6	No. 1 common 4/4.....		
Do.....	7	No. 2 common 4/4.....		
Do.....	8	Log run.....		
Do.....	9	Mill run.....		
Beech.....	10	Firsts and seconds 4/4.....		
Do.....	11	No. 1 common 4/4.....		
Do.....	12	Mill run.....		
Birch, unselected.....	13	Firsts and seconds 4/4.....		
Do.....	14	No. 1 common 4/4.....		
Do.....	15	No. 2 common 4/4.....		
Do.....	16	No. 2 common and better 4/4 or log run.....		
Do.....	17	Mill run.....		
Chestnut.....	18	Firsts and seconds 4/4.....		
Do.....	19	No. 1 common 4/4.....		
Do.....	20	No. 2 common and S. W. 4/4.....		
Do.....	21	No. 3 common 4/4.....		
Do.....	22	Mill run.....		
Cottonwood.....	23	Firsts and seconds 4/4, 6 to 12 inches.....		
Do.....	24	Boxboards 4/4, 13 to 17 inches.....		
Do.....	25	No. 1 common 4/4.....		
Do.....	26	No. 2 common 4/4.....		
Do.....	27	Mill run.....		
Cypress.....	28	Firsts and seconds clear 4/4.....		
Do.....	29	Selects 4/4.....		
Do.....	30	Shop, No. 1, 4/4.....		
Do.....	31	No. 1 common 4/4, random widths.....		
Do.....	32	No. 2 common 4/4, random widths.....		
Do.....	33	Mill run.....		
Cypress, shingles.....	34	Bests 5".....		
Do.....	35	Primes 5".....		
Elm, Rock.....	36	Firsts and seconds 8/4.....		
Do.....	37	No. 1 common and better 8/4.....		
Do.....	38	No. 2 common and better 8/4.....		
Do.....	39	Mill run.....		
Elm, Soft.....	40	No. 1 common and better 4/4.....		
Do.....	41	No. 2 common and better 4/4.....		
Do.....	42	Mill run.....		
Gum.....	43	Firsts and seconds 4/4, red.....		
Do.....	44	No. 1 common 4/4, red.....		
Do.....	45	Firsts and seconds 4/4, sap.....		
Do.....	46	No. 1 common 4/4, sap.....		
Do.....	47	No. 2 common 4/4.....		
Do.....	48	Mill run.....		
Hickory.....	49	Firsts and seconds 8/4.....		
Do.....	50	No. 1 common 8/4.....		
Do.....	51	No. 2 common 8/4.....		
Do.....	52	Mill run.....		
Maple, Hard.....	53	Firsts and seconds 4/4.....		
Do.....	54	No. 1 common 4/4.....		
Do.....	55	Mill run.....		
Maple, Soft.....	56	No. 1 common and better 4/4.....		
Do.....	57	No. 3 common 4/4.....		
Do.....	58	Log run.....		
Do.....	59	Mill run.....		
Oak, Plain.....	60	Firsts and seconds 4/4.....		\$33.00
Do.....	61	No. 1 common 4/4.....	\$18.67	18.00
Do.....	62	No. 2 common 4/4.....		8.67
Do.....	63	No. 3 common 4/4.....		
Do.....	64	Mill run.....		
Oak, Red, quartered.....	65	Firsts and seconds 4/4.....		
Do.....	66	No. 1 common 4/4.....		
Do.....	67	No. 2 common 4/4.....		
Do.....	68	Mill run.....		
Oak, White, quartered.....	69	Firsts and seconds 4/4.....		
Do.....	70	No. 1 common 4/4.....		
Do.....	71	No. 2 common 4/4.....		
Do.....	72	Mill run.....		
Poplar.....	73	Firsts and seconds 4/4.....		
Do.....	74	Saps or selects 4/4.....		
Do.....	75	No. 1 common 4/4.....		
Do.....	76	No. 2 common 4/4.....		
Do.....	77	Mill run.....		
Tupelo (Bay Poplar).....	78	Firsts and seconds clear, random, 4/4.....		
Do.....	79	No. 1 common, random, 4/4.....		
Do.....	80	Mill run.....		

Line Numbers Refer to Grades Listed on Page 20.

Line No.	ARKANSAS.				LOUISIANA.				MISSISSIPPI.				Line No.
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1	\$54.12	\$37.44	\$36.29	\$35.91	\$35.07	\$35.60	\$34.40	\$35.54	\$35.60	\$36.29	\$36.00	\$33.16	1
2	19.23	19.96	21.03	20.28	19.43	19.30	19.50	19.06	20.80	19.33	21.17	21.00	2
3	10.78	10.85	11.50	10.60	10.00	10.20	10.13	10.75	11.50	10.00	10.00	10.75	3
4	21.13	20.56	20.10							24.00			4
5													5
6													6
7													7
8													8
9													9
10													10
11													11
12													12
13													13
14													14
15													15
16													16
17													17
18													18
19													19
20													20
21													21
22													22
23	24.00	24.50	24.61	23.08	24.38	22.10	22.06	24.50	25.00	24.79	24.83	25.50	23
24	46.01	47.63	48.20	45.50	45.50	45.75	44.00	42.25	48.00	46.50	47.50	47.33	24
25	17.37	18.23	17.95	18.66	15.88	15.63	15.88	16.00	17.50	16.92	17.80	18.50	25
26	12.69	11.93	13.25	15.00	11.13	11.20	11.13	11.75	13.07	11.92	13.90	14.66	26
27	16.00	20.33	19.00		21.00	18.60				19.55		20.81	27
28	32.46	32.85	34.38	34.30	34.81	34.90	35.31	34.44	33.00	31.50	34.33	33.60	28
29	28.94	29.00	29.93	29.00	30.38	29.91	30.20	30.16	29.20	27.83	30.00	29.80	29
30	19.15	18.63	19.43	18.15	18.46	18.28	17.92	17.70	18.80	17.50	19.25	19.20	30
31	12.96	12.25	13.83	13.20	14.94	14.78	14.46	14.37	13.13	13.50	13.50	13.17	31
32	9.62	8.38	9.30	9.50	8.11	8.19	8.23	8.06	8.10	9.05	11.00	10.33	32
33	18.76	19.20	19.17	18.66	21.22	21.27	20.67	20.67					33
34	3.41	3.45			3.37	3.40	3.45	3.35					34
35	2.41	2.45			2.59	2.68	2.61	2.41					35
36													36
37													37
38													38
39													39
40		21.08											40
41	14.00	16.14	14.83	17.50					15.00	15.00		14.75	41
42	15.50	15.88	15.00			15.50				15.00			42
43	28.80	29.00	29.66	29.92	29.00	29.50			27.00	29.42	31.10	31.00	43
44	16.97	16.66	16.92	16.97	17.83	17.66			17.25	19.00	19.10	18.80	44
45	15.46	15.55	15.58	15.28	15.83	16.17	15.00		15.67	16.33	6.50	16.75	45
46	11.11	11.27	11.31	11.16	11.00	10.33	10.50		11.72	12.67	12.17	11.75	46
47	8.00	8.32	8.65	8.33	7.75	6.87	7.50		8.50	9.17	9.45	9.16	47
48	11.97	13.41	11.42	12.60						12.25	15.25		48
49	43.83	43.29	44.17	49.41					44.85	44.92		59.33	49
50	23.67	22.60	25.00						22.14				50
51	11.50	9.00	11.20										51
52	26.75	28.00											52
53													53
54													54
55													55
56		18.50											56
57	6.00	5.50											57
58	15.50	17.50		17.67									58
59	14.50	16.00	16.50	16.20									59
60	38.17	38.52	38.35	38.58	38.25	39.40	39.00	38.40	38.74	39.00	39.40	39.55	60
61	21.16	21.45	21.71	21.77	21.19	21.33	20.67	20.50	21.38	22.00	22.20	22.62	61
62	11.37	10.96	11.37	10.94	10.50	10.60	10.50	10.88	10.88	11.50	11.39	11.62	62
63	5.75	5.82	5.45	5.40	5.60		5.00		4.33	5.33	5.50	4.16	63
64	20.43	20.82	17.57	17.00	19.26		21.27		22.35	19.53	21.33	23.33	64
65	48.56	50.75	50.77	52.50	46.17	48.08			50.17	49.50	49.83	50.20	65
66	28.22	29.62	31.14	27.66	27.32	28.66			29.50	28.33	30.33	29.80	66
67	15.27	15.07	17.18	14.83	14.83				15.08	14.67	16.08	16.75	67
68	25.00	29.33		20.00					30.50	30.20			68
69	67.06	66.51	66.18	66.27	66.50	68.25		66.33	67.29	66.50	70.00	67.70	69
70	38.03	39.34	38.88	37.85	38.83	38.00		37.83	37.29	36.50	39.75	38.00	70
71	20.67	19.71	19.07	19.00	19.67	19.50			17.14	17.33	19.85	19.00	71
72	41.10	39.60	35.67	38.66									72
73									47.50	47.00			73
74									35.67	35.33			74
75									25.00	24.50			75
76									14.17	14.00			76
77										25.80			77
78				19.17	18.57	18.83	19.17	18.77					78
79				13.67	13.51	13.20	12.81	13.17	12.14				79
80					12.60	13.72	12.27			12.25			80

Line Numbers Refer to Grades Listed on Page 20.

Line No.	ALABAMA.				MISSOURI.				TEXAS.				Line No.
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1	\$36.17	\$35.00			\$36.50	\$40.83		\$34.33	\$39.31	\$39.50			1
2	23.83	21.50			21.00	23.00			23.80	21.00			2
3		13.25			15.00				13.00	12.00			3
4						20.00	\$23.33	19.20					4
5													5
6													6
7													7
8													8
9													9
10													10
11													11
12													12
13													13
14													14
15													15
16													16
17													17
18													18
19													19
20													20
21													21
22													22
23						26.33	25.75						23
24						49.50	48.67						24
25						18.17	19.00						25
26						15.50	15.33						26
27								15.33					27
28					32.25	35.37	34.67	33.66	33.25	33.37			28
29					29.75	30.98	29.63		30.25	30.37			29
30					18.17	19.57	19.13	19.16	18.50	18.09			30
31					14.10	15.70	14.06	15.16		14.00			31
32					10.80	11.30	10.00						32
33								17.33					33
34													34
35													35
36													36
37													37
38													38
39													39
40													40
41													41
42							16.00	13.75					42
43	27.50				29.80	29.50	31.25						43
44	17.50				17.40	18.20	19.00						44
45	17.00				16.80	16.80	16.88		16.37				45
46	12.50				12.60	13.00	13.00		11.87	13.00		\$16.33	46
47					9.70	10.13	10.13		9.50	10.00		12.00	47
48					11.42	12.17		12.90				8.67	48
49	45.17	47.58											49
50	27.00	28.50											50
51	13.50	11.75											51
52													52
53													53
54													54
55													55
56													56
57													57
58													58
59					14.50	16.25	13.70	15.67					59
60	38.12	37.56	\$38.67	\$34.75	38.10	35.12	39.71	37.25	41.25	41.50		40.33	60
61	24.33	24.75	23.50	21.87	22.67	22.75	22.67	20.80	24.25	22.75		22.83	61
62	11.67	11.33	11.67	10.67	11.67	12.33	11.94	11.50	13.25	12.50		12.25	62
63	8.03	8.51			6.80	6.17	6.25					6.84	63
64				18.50	13.98	14.50	18.50	13.29					64
65	50.10												65
66	29.46												66
67	15.12												67
68													68
69	71.67	65.83	68.67	63.50		70.33	72.50						69
70	40.08	37.00	39.33	35.50		41.50	41.75						70
71	19.51	18.00	18.67	15.33		21.00	21.33						71
72				38.66									72
73	48.33	45.25											73
74	32.25	32.50											74
75	25.83	24.55											75
76	14.17	13.00											76
77													77
78													78
79													79
80													80

Line Numbers Refer to Grades Listed on Page 20.

Line No.	FLORIDA.				SOUTH CAROLINA.				NORTH CAROLINA.				Line No.
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1									\$38.00	\$39.00	\$38.50	\$37.67	1
2									26.00	26.50	25.25	23.67	2
3										13.55	16.33		3
4										15.50			4
5									33.00	33.00	33.25	32.67	5
6									23.00	21.75	22.75	22.00	6
7									12.50	13.25	13.00	14.67	7
8									21.00	21.50			8
9									18.66	19.33		20.00	9
10													10
11													11
12													12
13													13
14													14
15													15
16													16
17													17
18									41.25	40.88	40.14	40.85	18
19									29.75	28.63	28.86	28.57	19
20									11.70	11.83	11.14	11.14	20
21									7.50	7.08	7.25	7.00	21
22													22
23													23
24													24
25													25
26													26
27													27
28	\$36.14	\$35.10	\$35.38	\$36.37	\$34.75								28
29	31.29	31.50	30.75	32.00	31.25	\$31.87							29
30	20.93	20.75	20.42	20.00	22.00	24.25							30
31	16.14	16.67	16.00	15.70	15.50	16.25							31
32	11.07	11.75	11.00	11.83	12.75	11.38							32
33	22.17	24.08		23.93	12.75	11.38			19.83				33
34	4.12	4.32		4.08									34
35	3.33	3.29		3.17									35
36													36
37													37
38													38
39													39
40													40
41													41
42													42
43													43
44													44
45									\$20.17				45
46									18.00				46
47									13.00				47
48									8.83				48
49													49
50													50
51													51
52													52
53													53
54													54
55													55
56													56
57													57
58												16.33	58
59													59
60									39.50	38.37	39.00	39.14	60
61									26.83	26.67	26.00	25.64	61
62									14.08	14.50	14.00	13.92	62
63									7.07	7.07	7.60	7.50	63
64									17.67	16.67	17.83	18.50	64
65													65
66													66
67													67
68													68
69													69
70													70
71													71
72													72
73									51.40	50.00	50.00	50.14	73
74									36.60	35.56	35.50	36.33	74
75									29.50	28.17	28.43	27.71	75
76									16.00	15.44	15.14	15.00	76
77									27.20			19.66	77
78									19.83				78
79									13.17				79
80											12.00		80

WHOLESALE PRICES OF LUMBER.

Line Numbers Refer to Grades Listed on Page 20.

[illegible]

Line Numbers Refer to Grades Listed on Page 20.

Line No.	WEST VIRGINIA.				OHIO.				INDIANA.				Line No.
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1	\$41.41	\$43.71	\$43.46	\$41.50	\$42.20	\$42.00	\$43.67	\$40.21	\$39.55	\$40.00	\$40.88	\$39.97	1
2	27.92	28.93	28.71	27.11	30.71	28.56	29.70	26.07	25.24	25.16	25.63	24.91	2
3	21.53	21.46	19.15		21.17	16.50	17.86	18.67	18.27	19.25	19.10	18.50	3
4	23.61	21.30	25.85	23.50	25.25	26.50	25.00	25.00	24.00	26.86	30.00	25.00	4
5	35.75	35.59	34.06	37.00	31.33	31.75	33.00	30.00	30.82	32.00	32.38	32.05	5
6	25.25	25.43	25.66	26.33	23.75	22.66	22.67	20.25	22.45	22.38	22.29	22.15	6
7	16.00	16.40	17.13	16.33	16.33	15.16	15.20	15.25	15.83	15.83	15.17	14.58	7
8	22.51	22.71	22.20	22.54	21.25	21.12	20.40	20.50	21.88	21.38	22.50	23.42	8
9	19.00	18.17	18.50	17.83	20.93	21.71			22.00	22.33			9
10		21.50					21.43	21.80	21.28	22.67	22.60	22.86	10
11		16.50			19.00		17.50	17.20	17.08	17.10	16.67	17.28	11
12	11.36	11.60	12.78	12.16	16.67	16.93	14.44	14.83	15.89	17.63	16.56	17.13	12
13	31.25	31.42	34.25	30.00									13
14	21.00	21.08	23.17	20.88									14
15	10.88	11.00	12.33	12.75									15
16	18.09	18.58	18.79	18.50									16
17	15.63	16.64	17.08	16.25									17
18	43.13	42.53	44.50	44.70	37.20	41.17	39.60	37.40			41.00		18
19	31.26	30.89	32.55	32.18	27.50	28.56	26.83	24.50			27.00		19
20	13.00	13.00	13.20	13.41	16.00	16.25	15.40	15.00		16.88	15.25		20
21	8.04	8.45	8.44	8.56	9.00		13.33	11.33					21
22	15.08	13.58	15.75	14.00	17.50	19.75	19.33	19.16		30.50			22
23													23
24												19.25	24
25												13.75	25
26								19.33			18.00	19.33	26
27													27
28													28
29													29
30													30
31													31
32													32
33													33
34													34
35													35
36												37.57	36
37												29.00	37
38													38
39					18.50	18.25				19.00		20.66	39
40					22.13	20.25	22.75	24.75	21.21	24.44	24.82	23.46	40
41					16.33	15.67	19.50	16.75	17.50	17.93	19.45	20.66	41
42					17.83	20.00	18.50	16.37	18.57	18.86	18.33	20.25	42
43											31.33		43
44											18.25		44
45										22.50			45
46										20.17			46
47													47
48										10.50			48
49										17.00	16.08	17.10	49
50					50.91	51.25	49.50	48.58	46.64	49.14	47.54	50.47	50
51					28.75	20.00	30.57	29.75	28.87	31.55	30.42	32.62	51
52					21.66	20.00	18.90	17.50	18.17	19.75	18.75	20.37	52
53	22.11	23.00	22.80	21.60	27.40	24.95	23.25	31.10	27.94	29.00	31.58	31.25	53
54	26.14	26.25	29.00	27.35	27.00	25.63	26.13	25.87	25.93	25.40	25.70	27.79	54
55	17.29	18.06	19.87	18.07	20.25	18.32	19.71	18.00	19.73	19.44	19.56	19.73	55
56	14.61	15.69	15.74	15.42	19.00	18.66	17.30	19.00	18.29	19.17	20.09	20.28	56
57	22.10	24.00	23.00	25.50	18.83	21.86	23.40	19.50	20.42	22.75	24.67	21.25	57
58	7.66	7.25		8.10				13.33	14.00			15.00	58
59	15.75	16.50	16.83	19.25			19.25		18.75	19.00	17.70	19.35	59
60	15.00	15.13	16.08	16.20	17.17	17.25	13.13	15.42	18.75	18.44	18.00	18.75	60
61	42.79	43.28	44.07	45.65	41.34	43.71	42.75	41.75	40.51	41.32	41.67	40.87	61
62	30.73	30.81	31.47	32.35	27.67	28.93	28.14	27.40	26.07	27.10	27.43	25.24	62
63	17.13	17.53	17.54	17.60	19.17	20.56	20.91	19.70	17.36	17.92	17.77	17.19	63
64	8.23	8.43	8.42	8.25	11.33	13.64	12.10	13.64	12.78	10.67	11.13	12.40	64
65	21.91	22.75	20.42	21.00	22.17		21.00	21.78	23.00	25.40	28.20	24.40	65
66	49.50			56.25	55.00	52.00	53.86		51.00	54.86	54.00	54.15	66
67	33.50			35.25	32.33	33.00	33.00		33.44	35.17	34.64	33.55	67
68	18.12			20.67	20.17	20.00	20.50		19.36	21.04	19.29	19.50	68
69					17.67	18.38							69
70	74.50		73.67		73.29	72.50	73.56	68.87	70.65	70.36	70.36	70.91	70
71	45.33		45.50	43.33	42.92	43.20	45.81	43.50	41.61	42.27	43.05	42.81	71
72	23.33		23.75		25.50	23.25	26.14	23.00	23.79	23.50	23.36	24.00	72
73													73
74	51.25	50.05	52.20	53.00	49.00	52.43	51.87	51.80	50.11	50.21	50.79	51.05	74
75	38.15	35.44	38.70	40.07	37.52	40.14	38.80	36.60	37.53	38.20	39.83	38.83	75
76	34.20	32.00	33.40	33.57	29.55	32.44	32.00	31.33	28.71	31.32	29.46	28.50	76
77	20.43	20.81	21.55	21.37	21.52	20.60	21.60	20.40	17.58	19.33	18.90	18.50	77
78	26.90	26.25	27.42	26.00	25.10	25.00		26.75	27.14				78
79													79
80													80

Line Numbers Refer to Grades Listed on Page 20.

Line No.	ILLINOIS.				MICHIGAN.				WISCONSIN.				Line No.
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1			\$41.25				\$40.67	\$38.66	\$35.93	\$37.53	\$37.30	\$35.90	1
2			25.00				28.67	24.75	24.06	22.84	23.81	23.07	2
3			17.38		\$25.24	\$25.75	25.78	24.90	22.10	22.20	21.49	22.52	3
4					20.57	24.26	22.29	20.37	18.80	18.91	18.88	18.35	4
5					37.11	37.40	36.19	34.78	33.65	34.03	34.19	33.36	5
6					26.67	24.00	26.38	24.78	23.09	23.47	22.59	22.23	6
7					17.73	17.00	14.83	16.61	13.68	13.69	13.19	14.48	7
8					25.07	23.71	24.32	24.23	22.58	22.65	22.13	22.00	8
9					18.53	21.23	19.80	21.12	19.80	19.20	19.45	17.66	9
10					22.00	21.50	23.20	23.66					10
11					15.93	17.75	15.83	18.20					11
12					12.91	13.07	13.51	13.03	13.67	12.88	13.17	13.42	12
13					35.25	33.33	34.45	34.40	33.84	34.28	34.41	34.34	13
14					20.73	19.00	21.73	21.73	20.10	19.52	19.14	19.29	14
15					13.60	12.00	14.50	14.44	11.46	11.50	11.25	11.33	15
16					22.77	21.85	22.56	22.54	20.93	20.72	20.53	21.00	16
17					18.14	17.27	16.71	17.73	17.72	17.44	17.08	15.60	17
18													18
19													19
20													20
21													21
22													22
23													23
24													24
25													25
26													26
27													27
28													28
29													29
30													30
31													31
32													32
33													33
34													34
35													35
36									32.00	32.70	34.20	31.80	36
37								23.33	23.62	23.80	28.80	29.00	37
38					25.50	23.56	23.82		22.54	22.44	22.40	22.26	38
39						24.00			20.33	20.00	17.85	17.32	39
40							29.33	29.00	23.58	25.00	26.00	26.00	40
41					23.20	24.20	25.00	23.65	19.63	19.77	19.38	19.34	41
42	\$14.50			\$17.33	17.77	19.51	18.88	20.34	18.32	17.71	15.33	15.60	42
43													43
44													44
45													45
46													46
47													47
48													48
49			46.40	51.66									49
50		\$26.00	32.00										50
51			24.38										51
52		30.88											52
53					28.74	28.09	28.76	28.00	24.79	25.43	26.68	26.27	53
54					20.95	20.31	21.25	21.08	17.37	17.48	17.52	17.38	54
55					19.09	19.08	19.13	17.10	14.88	15.91	16.02	14.26	55
56									17.83	18.88	21.58	20.56	56
57					7.58	8.12	8.33		7.69	7.56	7.58	7.37	57
58					17.84	17.98	18.20	18.38	16.18	15.68	16.05	16.44	58
59					16.25	14.60	16.16	14.08	14.93	14.67	14.25	13.70	59
60	37.15	38.00	40.60		38.00				40.67	44.77	45.22	45.45	60
61	24.50	23.67	27.50		24.50				30.39	31.88	31.65	30.34	61
62	15.06	15.00	16.13						19.38	22.93	18.69	18.83	62
63		10.00	12.67		10.33	10.00			9.05	9.22	9.11	8.45	63
64	19.67	19.23		19.17					24.50	27.13	27.49	22.36	64
65													65
66													66
67													67
68													68
69													69
70													70
71													71
72													72
73													73
74													74
75			17.67										75
76													76
77													77
78													78
79													79

27

[illegible]

WHOLESALE PRICES OF LUMBER.

Line Numbers Refer to Grades Listed on Page 20.

Line No.	CONNECTICUT.				MASSACHUSETTS.				NEW HAMPSHIRE.				Line No.
	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	Jan., Feb., Mar.	Apr., May, June.	July, Aug., Sept.	Oct., Nov., Dec.	
1													1
2													2
3													3
4	\$22.15	\$21.80	\$20.00	\$21.50	\$21.20	\$22.50	\$21.50	\$21.85		\$20.50			4
5													5
6													6
7													7
8													8
9	18.00			19.00	18.25		19.33	19.50		22.00			9
10													10
11													11
12			15.83	13.16	14.00	14.25	15.50	15.42	\$15.50			\$15.00	12
13													13
14													14
15													15
16													16
17	15.17	14.38	15.58	15.00	16.03	16.40	15.40	15.06	16.50	16.33	\$15.67	15.80	17
18													18
19	20.00			21.00				22.62					19
20													20
21													21
22	18.13	18.25	19.58	18.88	18.43	17.80	18.71	18.16		18.00	18.17	17.80	22
23													23
24													24
25													25
26													26
27													27
28													28
29													29
30													30
31													31
32													32
33													33
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38													38
39													39
40													40
41													41
42													42
43													43
44													44
45													45
46													46
47													47
48													48
49													49
50													50
51													51
52	21.00		23.00	22.66									52
53													53
54													54
55	20.00		17.10	18.20	17.50	17.00	19.00	16.75	17.00	18.25		16.50	55
56													56
57													57
58	12.79	12.00	14.00	14.92	13.04	15.00	14.40		13.14			13.00	58
59													59
60													60
61													61
62													62
63													63
64	21.50	20.67	21.23	19.69	21.14	20.38	22.14	20.33		20.00	21.25		64
65													65
66													66
67													67
68													68
69													69
70													70
71													71
72													72
73													73
74													74
75													75
76													76
77													77
78													78
79													79
80													80



OPPORTUNITIES FOR PURCHASING NATIONAL FOREST TIMBER.

The National Forests contain nearly 590 billion feet of merchantable stumpage. The mature timber, which constitutes a large part of the total stand, is for sale. The more accessible bodies may be purchased in blocks of practically any desired size up to 100 million feet. Less accessible stumpage which requires a large investment for the construction of transportation facilities may be purchased in larger quantities of sufficient size to justify the investment in improvements. Applications up to one billion feet will be approved if the investment required necessitates the purchase of a body of that size under one contract.

The procedure for purchasing National Forest timber is extremely simple. Applications specifying the amount, species, and general location desired may be sent to the offices of the Forest Service at Washington, D. C.; Chicago, Ill.; Missoula, Mont.; Denver, Colo.; Albuquerque, N. Mex.; Ogden, Utah; San Francisco, Cal.; and Portland, Oreg. Advertisement at a fixed minimum price is required by law for at least 30 days. The timber is then awarded to the highest bidder and the sale completed by execution of the contract stating the amount and location of the stumpage, the stumpage rates, and the conditions under which the timber shall be removed.

The contract requirements have been prepared by practical lumbermen and perfected by the experience gained in the administration of several thousand sales. They are adapted to the local conditions as to topography, size of the timber, and logging methods. That they are eminently practical is demonstrated by the fact that some 375 million feet are cut each year under these requirements by lumbermen all over the West.

Sufficient time is permitted for the removal of the amount purchased under local conditions of logging and manufacture. The time is gauged, however, to require continuous operation at a reasonable rate and does not permit the holding of stumpage for speculative increases in value. The timber to be cut is designated by the forest officers. Either clean cutting, or partial cutting taking 70 to 80 per cent of the stumpage, is employed, depending upon the character of the timber and the best methods of securing new forest growth. Simple precautions are required to protect the uncut timber and young growth, and the disposal of slash by burning, either with or without piling, is necessary.

These requirements may increase the cost of logging from 50 to 75 cents a thousand feet over the usual cost on private holdings. The difference is always considered in appraising the value of the stumpage. Furthermore, an operator who buys National Forest timber has to make practically no investment at the outset for his stumpage, has no carrying charges for interest or taxes, and incurs practically no fire risk. He is required simply to pay for the timber as it is removed in advance deposits, which represent usually but the value of a month and a half's cut.

These are obvious advantages, particularly when extended over an operation of 10 or 15 years. As private stumpage is cut out in many of the old lumbering centers, operators will find in the timber on the National Forests new opportunities for manufacture under advantageous conditions.

Walter Mulford

Issued May 8, 1912.

U. S. DEPARTMENT OF AGRICULTURE,
FOREST SERVICE.

HENRY S. GRAVES, Forester.

RECORD OF WHOLESALE PRICES
OF LUMBER.

(PER 1,000 FEET B. M.)

BASED ON ACTUAL SALES MADE F. O. B. MILL FOR

JANUARY, FEBRUARY, AND MARCH, 1912.

FOREST SERVICE.

HENRY S. GRAVES, *Forester*.

ALBERT F. POTTER, *Associate Forester*.

HERBERT A. SMITH, *Editor*.

Branch of Products: MCGARVEY CLINE, in charge.

Office of Wood Utilization: H. S. SACKETT, in charge.

Washington Office of Products: O. T. SWAN, in charge

Statistician in Forest Products: J. C. NELLIS.

PREFATORY NOTE.

The Forest Service has two main purposes in collecting and compiling this record of f. o. b. mill prices: First, to have a continuous statistical record of such prices of the various commercial woods; and, second, to show, in contrast to market prices—which include the important items of freight charges and selling costs—just what the manufacturers of lumber receive for their product at the mill. The prices given are wholesale, based on actual sales f. o. b. mill, for delivery outside of local territory. Only a few representative grades and the mill run are included. By “mill run” is meant the average of all grades of lumber produced. The record is compiled by States, and is made up from reports received from approximately 3,000 of the largest manufacturers scattered throughout the country. It is published quarterly.

The Forest Service wishes to acknowledge the courtesy of the manufacturers for their prompt and efficient cooperation. Their assistance has been of great value in making the record complete, accurate, and promptly available for distribution.

The Forest Service is engaged in many investigations of interest to lumber manufacturers. The work as now organized comprises studies in the physical properties of wood; air-seasoning and kiln-drying; strength tests upon commercial timbers of the United States; wood preservation, including the study of different preservatives and methods of impregnation; softwood and hardwood distillation; wood pulp and paper; naval stores; and wood utilization, which includes studies of the wood-using industries of various States, the collection and compilation of statistics of forest products and wholesale lumber prices, etc. Reports on these investigations are published from time to time, and are available to the trade upon request.

A copy of any of the following recent statistical reports may be obtained by addressing the Forester, Forest Service, Washington, D. C.:

- Forest Products, No. 1, Pulp-Wood Consumption, 1910.
- Forest Products, No. 2, Lumber, Lath, and Shingles, 1910.
- Forest Products, No. 3, Slack Cooperage Stock, 1910.
- Forest Products, No. 5, Veneers, 1910.
- Forest Products, No. 6, Tight Cooperage Stock, 1910.
- Forest Products, No. 7, Wood Distillation, 1910.
- Forest Products, No. 8, Crossties Purchased, 1910.
- Forest Products, No. 9, Poles Purchased, 1910.

SUMMARY.

Reports received for the first quarter of 1912 show decided improvements in the prices received for yellow pine, North Carolina pine, and eastern hemlock, but no general gains are apparent in the prices for other softwoods. Hardwoods advanced in Virginia, Michigan, and Wisconsin.

In Washington, Sitka spruce shop No. 1 declined \$1; finish No. 2 clear and better \$2.50, while beveled siding B advanced \$1.85. In the same State western yellow pine finish C select declined \$2.50. In Montana western larch flooring A and B declined \$1.80; finish A and B, \$3.45; dimension No. 1 common, \$1.

In Texas flooring No. 2 S2S and C. M. advanced \$1.35; flooring B flat, \$1; common boards No. 2 S2S, 1 by 12 inches, \$1.10; and car siding B and better, \$1.85. In Arkansas the important changes were the advance in car siding B and better of \$1.50, and in common car lining No. 1 of \$1.30. Car siding B and better advanced \$2.10 in Louisiana and \$2.60 in Mississippi. In Florida common boards No. 1 declined \$2.30 and plank and dimensions \$1 to \$2.45. In Georgia finish B and better declined \$1.25; flooring B heart rift, \$4; while common boards No. 1 advanced \$1.75 and plank and dimension items \$1 to \$2.40.

In South Carolina, North Carolina pine items advanced as follows: Flooring No. 2, \$2.35; flooring No. 3, \$1.35; dimension 2 by 8 inches by 16 feet, \$1.15; roofers, \$1.20; box edge, nearly \$1. In North Carolina flooring No. 2 advanced 60 cents; flooring No. 3, \$1.50. In Virginia box edge advanced \$1.60.

West Virginia spruce box boards advanced \$1, while merchantable frames 2 by 12 inches to 12 by 12 inches declined \$1.75; and merchantable boards 1 by 12 inches, \$1.40. In New York hemlock mill run M. C. O. advanced over \$2. In Vermont spruce merchantable frames 9 inches and under advanced \$1.80; 10 and 12 inches, \$2.60; merchantable 2 by 7 inches and under, nearly \$1.

Minnesota white pine selects C and better advanced \$1.50; and boards No. 4, \$1.25, while beveled siding C declined \$1.30. In Wisconsin the only advance in white pine was 70 cents on boards No. 4; inch finish C selects, 10 inches, declined \$1.25; shop No. 1, 3/4, over \$2; shop No. 3, 5/4, \$1.80, etc. Hemlock in Wisconsin advanced as follows: 2-inch piece stuff, nearly 50 cents; boards No. 1, 75 cents; and fencing No. 1, over \$1. Hemlock also advanced in Michigan; 2-inch piece stuff, \$1.20; boards No. 1, 90 cents; fencing No. 1, \$1.35.

In Arkansas cottonwood made advance as follows: Firsts and seconds, 70 cents; box boards, \$1.75; No. 1 common, \$2.35; No. 2 common, \$1.40; red gum firsts and seconds declined nearly \$2. In Louisiana cottonwood firsts and seconds declined \$1.75, but other items advanced as follows: Box boards, nearly \$3; No. 1 common, \$2.30; and No. 2 common, \$1.70; cypress firsts and seconds declined nearly \$1; selects, \$1.35; tupelo (bay poplar) firsts and seconds advanced 75 cents; and No. 1 common, 95 cents. In Mississippi and Alabama plain oak firsts and seconds and No. 1 common declined about \$1. In Missouri cypress shop No. 1 and No. 1 common declined \$1.10; plain

oak firsts and seconds declined \$2; No. 1 common advanced \$2.45. Florida cypress firsts and seconds declined \$1.65, and box boards \$2.40. In North Carolina chestnut firsts and seconds declined \$2; No. 1 common, \$1.25; plain oak and poplar firsts and seconds declined \$1. In Tennessee ash firsts and seconds declined \$3 and No. 1 common \$1.85; basswood firsts and seconds and No. 1 common, \$1; and No. 2 common, 75 cents; chestnut firsts and seconds, \$2; plain oak firsts and seconds and No. 1 and No. 3 common, over \$1; poplar firsts and seconds, \$1.35; No. 1 common, \$1.20; and No. 2 common, 90 cents. In Kentucky ash firsts and seconds and No. 2 common declined over \$1; chestnut firsts and seconds and No. 1 common, nearly \$1; plain oak firsts and seconds and No. 2 common, \$1.25; poplar firsts and seconds, over \$1; and No. 1 common, \$1.60.

In Virginia ash No. 1 common advanced \$2.75 and No. 2 common \$2.35; basswood No. 1 common, \$1.25, and No. 2 common, \$1.75; chestnut firsts and seconds, 75 cents; No. 1 common, over \$2; plain oak firsts and seconds, \$2; No. 1 common, \$2.65; poplar firsts and seconds, \$3.45; saps and selects, \$3.70; No. 1 common, \$1.30; and No. 2 common, \$1.60. In West Virginia ash firsts and seconds declined \$2, while No. 1 common advanced 70 cents; basswood firsts and seconds and No. 1 common declined \$1.50; chestnut firsts and seconds, \$1.80; No. 1 common, 85 cents; plain oak firsts and seconds, \$1.80; poplar firsts and seconds, \$1.35; saps and selects, \$2.70; and No. 1 common, \$1.45. In Ohio ash firsts and seconds declined \$3.50; No. 1 common advanced \$2.70; basswood firsts and seconds and No. 1 common advanced \$1.20; plain oak firsts and seconds declined \$2.75, and No. 3 common, \$1.50. Indiana ash firsts and seconds declined \$2.75, and No. 1 common, 75 cents; basswood firsts and seconds declined nearly \$1, but No. 1 common advanced 60 cents, and No. 2 common over \$1; plain oak firsts and seconds declined over \$1, but No. 1 common advanced \$1.45.

In Michigan ash firsts and seconds advanced \$2, and No. 1 common \$2.90; basswood firsts and seconds, \$1.20; beech firsts and seconds advanced \$1.35, but No. 1 common declined \$1; unselected birch firsts and seconds advanced \$2.40; No. 1 common, \$1, and No. 2 common, \$1.40; hard maple firsts and seconds, \$1.80. In Wisconsin ash, basswood, and birch prices improved slightly; rock elm firsts and seconds advanced \$1.35, but No. 1 common and better declined \$6; soft maple No. 1 common and better advanced \$1.70. In New York ash firsts and seconds advanced \$3.25, and No. 1 common \$1; beech No. 1 common declined \$2.60; unselected birch No. 1 common, \$1.40, while No. 2 common advanced \$1.25; hard maple firsts and seconds, \$1.35.

Species.	Line No.	Grade.
Cedar, Western Red.....	1	Beveled siding No. 1, $\frac{3}{4}$ " x 6".
Do.....	2	Shop No. 2, $1\frac{1}{2}$ " and $1\frac{3}{4}$ " x 8".
Do.....	3	Shingles, perfection, 18".
Do.....	4	Shingles, extra clear, $5\frac{1}{2}$ "-16".
Do.....	5	Star-A-Star, $6\frac{1}{2}$ "-16".
Do.....	6	Mill run.
Fir, Douglas.....	7	Flooring No. 1, v. g., $1\frac{1}{2}$ " x 4".
Do.....	8	Flooring No. 2, v. g., $1\frac{1}{2}$ " x 4".
Do.....	9	Flooring No. 2, flat, $1\frac{1}{2}$ " x 4".
Do.....	10	Finish No. 2 and better, 6" and 8".
Do.....	11	Drop siding, No. 2 slash.
Do.....	12	Dimension, Com., SISE, 2" x 12"-16".
Do.....	13	Car sills, 5" x 8'-36".
Do.....	14	Timbers, 12" x 12", average 32'.
Do.....	15	Crossties, 7" x 9".
Do.....	16	Lath, per M.
Do.....	17	Mill run.
Fir, White.....	18	Common boards, 6" and 8".
Do.....	19	Lath, per M.
Do.....	20	Mill run.
Hemlock, Western.....	21	Flooring Nos. 1 and 2, v. g., $1\frac{1}{2}$ " x 4".
Do.....	22	Finish Nos. 1 and 2, 5" and wider.
Do.....	23	Dimension, No. 1, Com., 2" x 4" to 2" x 8".
Do.....	24	Shiplap, 1".
Do.....	25	Shop No. 1, $1\frac{1}{2}$ " x 8" and wider.
Do.....	26	Mill run.
Larch, Western.....	27	Flooring, A and B (Nos. 1 and 2 clear), $1\frac{1}{2}$ " x 4".
Do.....	28	Finish, A and B (Nos. 1 and 2 clear), $1\frac{1}{2}$ " x 8".
Do.....	29	Drop siding, A and B (Nos. 1 and 2 clear), $1\frac{1}{2}$ " x 6".
Do.....	30	Common boards No. 2, $1\frac{1}{2}$ " x 8'-16".
Do.....	31	Dimension No. 1, Com., 2" x 8'-16".
Do.....	32	Lath, per M.
Do.....	33	Mill run.
Pine, Sugar.....	34	Firsts and seconds, clear.
Do.....	35	Shop No. 1, 2" x 8" and wider.
Do.....	36	Shop No. 2, 2" x 8" and wider.
Do.....	37	Mill run.
Pine, Western White.....	38	Finish, C select, 8".
Do. (Idaho White).....	39	Finish, D select, 8".
Do.....	40	Beveled siding, B and better, 4" and 6".
Do.....	41	Beveled siding, C, 4" and 6".
Do.....	42	Common boards No. 2, 6" and 8".
Do.....	43	Mill run.
Pine, Western Yellow.....	44	Flooring, B and better (Nos. 1 and 2 clear), 4" and 6"-16".
Do. (including Western Pine, California White Pine, New Mexico White Pine).....	45	Finish, B select and better, 1" by 10"-16".
Do.....	46	Finish, C select, 8".
Do.....	47	Beveled siding, B and better, 4" and 6".
Do.....	48	Beveled siding, C, 4" and 6".
Do.....	49	Shop No. 1, $\frac{6}{4}$.
Do.....	50	Shop No. 2, $\frac{6}{4}$.
Do.....	51	Common boards No. 2, $1\frac{1}{2}$ " x 8'-16".
Do.....	52	Dimension, No. 1, Com., 2" x 8'-16".
Do.....	53	Lath No. 1, per M.
Do.....	54	Mill run.
Redwood.....	55	Clear, 6" to 12", 10' to 20'.
Do.....	56	Sappy clear, 6" to 8", 10' to 20'.
Do.....	57	Common boards No. 1.
Do.....	58	Common boards No. 2.
Do.....	59	Crossties, 6" x 8'-8".
Do.....	60	Shingles No. 1, per M.
Do.....	61	Shingles No. 2, per M.
Do.....	62	Mill run.
Spruce, Sitka.....	63	Shop No. 1, $\frac{6}{4}$.
Do. (Western Spruce).....	64	Finish No. 2, clear and better, $1\frac{1}{2}$ " x 12".
Do.....	65	Flooring No. 2, clear and better, $1\frac{1}{2}$ " x 4".
Do.....	66	Beveled siding, B, $\frac{3}{4}$ " x 6".
Do.....	67	Common boards, $1\frac{1}{2}$ " x 12".
Do.....	68	Mill run.

WHOLESALE PRICES OF LUMBER.

7

	California.	Oregon.	Washington.	Idaho.	Montana.	Colorado.	
1			\$16.96				1
2			12.88				2
3							3
4			1.81				4
5			1.51				5
6			12.52				6
7		\$24.83	22.00				7
8		20.28	18.47				8
9		13.42	13.29				9
10		20.60	19.26				10
11		15.30	13.67				11
12		8.66	8.12				12
13		12.17	12.48				13
14		9.45	9.15				14
15		8.74	8.59				15
16		1.30	1.28				16
17		11.14	10.99	\$10.92			17
18		9.67	7.50	10.83			18
19							19
20			9.83	10.42			20
21			19.38				21
22			17.83				22
23			7.14				23
24			8.17				24
25			12.33				25
26			8.50				26
27				19.33	\$16.75		27
28					19.56		28
29					17.19		29
30					13.00		30
31			8.80	11.67	10.19		31
32				11.33	1.62		32
33				10.69	12.08		33
34							34
35							35
36							36
37							37
38				35.75			38
39				24.33			39
40							40
41							41
42				13.50			42
43				18.00	13.73		43
44						\$31.50	44
45			34.17				45
46			25.90				46
47			19.50				47
48			16.10				48
49	\$25.30		23.42				49
50	16.28		16.25				50
51	14.13			12.83		13.63	51
52			9.00			14.83	52
53			2.50				53
54			12.27	13.15		13.10	54
55	21.98						55
56	18.07						56
57	12.62						57
58	10.13						58
59	10.00						59
60	1.34						60
61	.85						61
62	13.76						62
63			15.75				63
64			29.43				64
65			29.00				65
66			16.10				66
67			9.90				67
68			13.75				68

Species.	Line No.	Grade.
Hemlock (Lake States).....	1	2" piece stuff, S1S1E, 2" x 4'-16'.
Do.....	2	Boards, No. 1, S1S, 1" x 8'-16'.
Do.....	3	Timbers, rough, 4" x 4' to 8" x 8'-16'.
Do.....	4	Fencing No. 1, S1S, 1" x 6'.
Do.....	5	Lath No. 1, 3/4'-4'.
Do.....	6	Mill run.
Hemlock (Eastern States).....	7	8/4 merch. 4" to 12", 10' to 20'.
Do.....	8	4/4 merch. 6" and 8'-16'.
Do.....	9	4/4 merch. 10" and 12'-16'.
Do.....	10	4/4 merch. boards, 6" and up, S1S, clipped, 12'-16'.
Do.....	11	4/4 boards, No. 2, 1" x 4'-12", 6'-20'.
Do.....	12	Mill run, mill culls out.
Do.....	13	Mill culls.
Do.....	14	Mill run.
Pine, North Carolina.....	15	Flooring, No. 2, 1" x 4" x 10'-16'.
Do.....	16	Flooring, No. 3, 1" x 4" x 10'-16'.
Do.....	17	Dimension (air dried), 2" x 8'-16' and under.
Do.....	18	Roofers, 1" x 8", D. & M.
Do.....	19	Partition No. 1, 13/16" x 3 1/2", 10'-16'.
Do.....	20	No. 1 edge 4/4, under 12".
Do.....	21	Box edge 4/4, under 12".
Do.....	22	Mill run.
Pine, White.....	23	Selects C and better, 5/4 (M. L.).
Do.....	24	Inch finish, C selects, 10" (M. L.).
Do.....	25	Shop No. 1, 3/4 (M. L.).
Do.....	26	Shop No. 3, 5/4 (M. L.).
Do.....	27	Beveled siding, C, 6" x 16'.
Do.....	28	Boards No. 2, 1" x 8'-16'.
Do.....	29	Boards No. 3, 12", 10'-20'.
Do.....	30	Boards No. 4, mixed widths, 10'-20'.
Do.....	31	Fencing No. 2, S1S, 6" x 16'.
Do.....	32	Lath No. 1 (W. P.).
Do.....	33	Lath No. 1 (mixed).
Do.....	34	Mill run.
Pine, Yellow.....	35	Flooring, B, v, g. 13/16" x 3 1/2".
Do. (Mississippi Valley Mills).....	36	Flooring, No. 2, D. & M., 1" x 4'.
Do.....	37	Flooring, No. 2, S2S and C. M., 1" x 6'.
Do.....	38	Flooring, B, flat, 13/16" x 3 1/2".
Do.....	39	Finish, B and better, 6" and wider.
Do.....	40	Dimension No. 1, S1S1E, 2" x 8'-16'.
Do.....	41	Com. boards, No. 1, S2S, 1" x 10'.
Do.....	42	Com. boards, No. 2, S2S, 1" x 8'.
Do.....	43	Com. boards, No. 2, S2S, 1" x 12'.
Do.....	44	Timbers S1S1 E, 6" x 8'-16'.
Do.....	45	Car siding, B and better, 1" x 4" and 6" x 9'-18'.
Do.....	46	Com. car lining, No. 1, 1" x 6" x 10'-20'.
Do.....	47	Lath No. 1, 3/4".
Do.....	48	Mill run.
Pine, Yellow.....	49	Finish, B and better, 6" and wider.
Do. (Atlantic Coast Mills).....	50	Flooring, B and better, heart rift, 13/16" x 2 1/2".
Do.....	51	Flooring, B and better, sap rift, 13/16" x 2 1/2".
Do.....	52	Flooring, B, heart rift, 13/16" x 2 1/2".
Do.....	53	Flooring, B, sap rift, 13/16" x 2 1/2".
Do.....	54	Flooring, B, sap flat, 13/16" x 3 1/2".
Do.....	55	Com. boards, No. 1, S2S, 1" x 10' x 10'-16'.
Do.....	56	Com. boards, No. 2, S2S, 1" x 10' x 10'-16'.
Pine, Yellow, merch. grade (Sail).....	57	Plank and dimensions: Sizes 2" x 6" to 8" x 8", average 24'.
Do.....	58	Sizes 2" x 9" to 10" x 10", average 24'.
Do.....	59	Sizes 2" x 12" to 12" x 12", average 24'.
Do.....	60	Sizes 2" x 14" to 14" x 14", average 24'.
Do.....	61	Sizes 2" x 16" to 16" x 16", average 24'.
Do.....	62	Mill run.
Spruce (Eastern).....	63	Merch. frames 9" and under, 24' and under.
Do.....	64	Merch. frames 10" and 12", 24' and under.
Do.....	65	Merch. random 10" and 12", 10' and up.
Do.....	66	Merch. 2" x 7" and under, 10' to 24'.
Do.....	67	Merch. 2" x 8" and up, 10' to 24'.
Do.....	68	Lath, 1 1/2".
Do.....	69	Mill run.
Spruce (Adirondack).....	70	Mill run, mill culls out.
Do.....	71	No. 1 and clear.
Do.....	72	No. 2.
Do.....	73	No. 3.
Do.....	74	Mill culls.
Do.....	75	Mill run.
Spruce (West Virginia).....	76	Merch. frames 3" x 4" to 8" x 8", 10'-16'.
Do.....	77	Merch. frames 2" x 12" to 12" x 12", 10'-16'.
Do.....	78	Boards, merch., 1" x 12", 10'-20'.
Do.....	79	Boards, box, 1" x 4'-12".
Do.....	80	Mill run.

Species.	Line No.	Grade.
Hemlock (Lake States).....	1	2' piece stuff, S1S1E, 2' x 4'-16'.
Do.....	2	Boards, No. 1, S1S, 1' x 8'-16'.
Do.....	3	Timbers, rough, 4' x 4' to 8'-16'.
Do.....	4	Fencing No. 1, S1S, 1' x 6'.
Do.....	5	Lath, No. 1, 3'-4'.
Do.....	6	Mill run.
Hemlock (Eastern States).....	7	8/4 merch. 4' to 12', 10' to 20'.
Do.....	8	4/4 merch. 6' and 8'-16'.
Do.....	9	4/4 merch. 10' and 12'-16'.
Do.....	10	4/4 merch. boards, 6' and up, S1S, clipped, 12'-16'.
Do.....	11	4/4 boards, No. 2, 1' x 4'-12', 6'-20'.
Do.....	12	Mill run, mill culls out.
Do.....	13	Mill culls.
Do.....	14	Mill run.
Pine, North Carolina.....	15	Flooring, No. 2, 1' x 4' x 10'-16'.
Do.....	16	Flooring, No. 3, 1' x 4' x 10'-16'.
Do.....	17	Dimension (air dried), 2' x 8'-16' and under.
Do.....	18	Roofers, 1' x 8', D. & M.
Do.....	19	Partition No. 1, 13/16' x 3 1/2', 10'-16'.
Do.....	20	No. 1 edge 4/4, under 12'.
Do.....	21	Box edge 4/4, under 12'.
Do.....	22	Mill run.
Pine, White.....	23	Selects C and better, 5/4 (M. L.).
Do.....	24	Inch finish, C selects, 10' (M. L.).
Do.....	25	Shop No. 1, 3/4 (M. L.).
Do.....	26	Shop No. 3, 5/4 (M. L.).
Do.....	27	Beveled siding, C, 6' x 16'.
Do.....	28	Boards No. 2, 1' x 8'-16'.
Do.....	29	Boards No. 3, 12', 10'-20'.
Do.....	30	Boards No. 4, mixed widths, 10'-20'.
Do.....	31	Fencing No. 2, S1S, 6' x 16'.
Do.....	32	Lath No. 1 (W. P.).
Do.....	33	Lath No. 1 (mixed).
Do.....	34	Mill run.
Pine, Yellow.....	35	Flooring, B, v. g. 13/16" x 3 1/4'.
Do. (Mississippi Valley Mills).....	36	Flooring, No. 2, D. & M., 1' x 4'.
Do.....	37	Flooring, No. 2, S2S and C. M., 1' x 6'.
Do.....	38	Flooring, B, flat, 13/16" x 3 1/4'.
Do.....	39	Finish, B and better, 6' and wider.
Do.....	40	Dimension No. 1, S1S1E, 2' x 8'-16'.
Do.....	41	Com. boards, No. 1, S2S, 1' x 10'.
Do.....	42	Com. boards, No. 2, S2S, 1' x 8'.
Do.....	43	Com. boards, No. 2, S2S, 1' x 12'.
Do.....	44	Timbers S1S1E, 6' x 8'-16'.
Do.....	45	Car siding, B and better, 1' x 4' and 6' x 9'-18'.
Do.....	46	Com. car lining, No. 1, 1' x 6' x 10'-20'.
Do.....	47	Lath No. 1, 3'.
Do.....	48	Mill run.
Pine, Yellow.....	49	Finish, B and better, 6' and wider.
Do. (Atlantic Coast Mills).....	50	Flooring, B and better, heart rift, 13/16" x 2 1/2'.
Do.....	51	Flooring, B and better, sap rift, 13/16" x 2 1/2'.
Do.....	52	Flooring, B, heart rift, 13/16" x 2 1/2'.
Do.....	53	Flooring, B, sap rift, 13/16" x 2 1/2'.
Do.....	54	Flooring, B, sap flat, 13/16" x 3 1/4'.
Do.....	55	Com. boards, No. 1, S2S, 1' x 10' x 10'-16'.
Do.....	56	Com. boards, No. 2, S2S, 1' x 10' x 10'-16'.
Pine, Yellow, merch. grade (Sail).....	57	Plank and dimensions: Sizes 2' x 6' to 8' x 8', average 24'.
Do.....	58	Sizes 2' x 9' to 10' x 10', average 24'.
Do.....	59	Sizes 2' x 12' to 12' x 12', average 24'.
Do.....	60	Sizes 2' x 14' to 14' x 14', average 24'.
Do.....	61	Sizes 2' x 16' to 16' x 16', average 24'.
Do.....	62	Mill run.
Spruce (Eastern).....	63	Merch. frames 9' and under, 24' and under
Do.....	64	Merch. frames 10' and 12', 24' and under.
Do.....	65	Merch. random 10' and 12', 10' and up.
Do.....	66	Merch. 2' x 7' and under, 10' to 24'.
Do.....	67	Merch. 2' x 8' and up, 10' to 24'.
Do.....	68	Lath, 1 1/2'.
Do.....	69	Mill run.
Spruce (Adirondack).....	70	Mill run, mill culls out.
Do.....	71	No. 1 and clear.
Do.....	72	No. 2.
Do.....	73	No. 3.
Do.....	74	Mill culls.
Do.....	75	Mill run.
Spruce (West Virginia).....	76	Merch. frames, 3' x 4' to 8' x 8', 10'-16'.
Do.....	77	Merch. frames, 2' x 12' to 12' x 12', 10'-16'.
Do.....	78	Boards, merch., 1' x 12', 10'-20'.
Do.....	79	Boards, box, 1' x 4'-12'.
Do.....	80	Mill run.

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Species.	Line No.	Grade.
Ash.....	1	Firsts and seconds 4/4.
Do.....	2	No. 1 common 4/4.
Do.....	3	No. 2 common 4/4.
Do.....	4	Mill run.
Basswood.....	5	Firsts and seconds 4/4.
Do.....	6	No. 1 common 4/4.
Do.....	7	No. 2 common 4/4.
Do.....	8	Log run.
Do.....	9	Mill run.
Beech.....	10	Firsts and seconds 4 4.
Do.....	11	No. 1 common 4/4.
Do.....	12	Mill run.
Birch, unselected.....	13	Firsts and seconds 4/4.
Do.....	14	No. 1 common 4/4.
Do.....	15	No. 2 common 4/4.
Do.....	16	No. 2 common and better 4/4 or log run.
Do.....	17	Mill run.
Chestnut.....	18	Firsts and seconds 4/4.
Do.....	19	No. 1 common 4/4.
Do.....	20	Sound wormy 4/4.
Do.....	21	No. 3 common 4/4.
Do.....	22	Mill run.
Cottonwood.....	23	Firsts and seconds 4/4, 6 to 12 inches.
Do.....	24	Box boards 4/4, 13 to 17 inches.
Do.....	25	No. 1 common 4/4.
Do.....	26	No. 2 common 4/4.
Do.....	27	Mill run.
Cypress.....	28	Firsts and seconds clear 4/4.
Do.....	29	Selects 4/4.
Do.....	30	Shop, No. 1, 4/4.
Do.....	31	No. 1 common 4/4, random widths.
Do.....	32	No. 2 common 4/4, random widths.
Do.....	33	Mill run.
Cypress, shingles.....	34	Bests 5".
Do.....	35	Primes 5".
Elm, Rock.....	36	Firsts and seconds 8/4.
Do.....	37	No. 1 common and better 8/4.
Do.....	38	No. 2 common and better 8/4.
Do.....	39	Mill run.
Elm, Soft.....	40	No. 1 common and better 4/4.
Do.....	41	No. 2 common and better 4/4.
Do.....	42	Mill run.
Gum.....	43	Firsts and seconds 4/4, red.
Do.....	44	No. 1 common 4/4, red.
Do.....	45	Firsts and seconds 4/4, sap.
Do.....	46	No. 1 common 4/4, sap.
Do.....	47	No. 2 common 4/4.
Do.....	48	Mill run.
Hickory.....	49	Firsts and seconds 8/4.
Do.....	50	No. 1 common 8/4.
Do.....	51	No. 2 common 8/4.
Do.....	52	Mill run.
Maple, Hard.....	53	Firsts and seconds 4/4.
Do.....	54	No. 1 common 4/4.
Do.....	55	Mill run.
Maple, Soft.....	56	No. 1 common and better 4/4.
Do.....	57	No. 3 common 4/4.
Do.....	58	Log run.
Do.....	59	Mill run.
Oak, Plain.....	60	Firsts and seconds 4/4.
Do.....	61	No. 1 common 4/4.
Do.....	62	No. 2 common 4/4.
Do.....	63	No. 3 common 4/4.
Do.....	64	Mill run.
Oak, Red, quartered.....	65	Firsts and seconds 4/4.
Do.....	66	No. 1 common 4/4.
Do.....	67	No. 2 common 4/4.
Do.....	68	Mill run.
Oak, White, quartered.....	69	Firsts and seconds 4/4.
Do.....	70	No. 1 common 4/4.
Do.....	71	No. 2 common 4/4.
Do.....	72	Mill run.
Poplar.....	73	Firsts and seconds 4/4.
Do.....	74	Saps or selects 4/4.
Do.....	75	No. 1 common 4/4.
Do.....	76	No. 2 common 4/4.
Do.....	77	Mill run.
Tupelo (Bay Poplar).....	78	Firsts and seconds clear, random, 4/4.
Do.....	79	No. 1 common, random, 4/4.
Do.....	80	Mill run.

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Species.	Line No.	Grade.
Ash.....	1	Firsts and seconds 4/4.
Do.....	2	No. 1 common 4/4.
Do.....	3	No. 2 common 4/4.
Do.....	4	Mill run.
Basswood.....	5	Firsts and seconds 4/4.
Do.....	6	No. 1 common 4/4.
Do.....	7	No. 2 common 4/4.
Do.....	8	Log run.
Do.....	9	Mill run.
Beech.....	10	Firsts and seconds 4/4.
Do.....	11	No. 1 common 4/4.
Do.....	12	Mill run.
Birch, unselected.....	13	Firsts and seconds 4/4.
Do.....	14	No. 1 common 4/4.
Do.....	15	No. 2 common 4/4.
Do.....	16	No. 2 common and better 4/4 or log run.
Do.....	17	Mill run.
Chestnut.....	18	Firsts and seconds 4/4.
Do.....	19	No. 1 common 4/4.
Do.....	20	Sound wormy 4/4.
Do.....	21	No. 3 common 4/4.
Do.....	22	Mill run.
Cottonwood.....	23	Firsts and seconds 4/4, 6 to 12 inches.
Do.....	24	Boxboards 4/4, 13 to 17 inches.
Do.....	25	No. 1 common 4/4.
Do.....	26	No. 2 common 4/4.
Do.....	27	Mill run.
Cypress.....	28	Firsts and seconds clear 4/4.
Do.....	29	Selects 4/4.
Do.....	30	Shop, No. 1, 4/4.
Do.....	31	No. 1 common 4/4, random widths.
Do.....	32	No. 2 common 4/4, random widths.
Do.....	33	Mill run.
Cypress, shingles.....	34	Bests 5''.
Do.....	35	Primes 5''.
Elm, Rock.....	36	Firsts and seconds 8/4.
Do.....	37	No. 1 common and better 8/4.
Do.....	38	No. 2 common and better 8/4.
Do.....	39	Mill run.
Elm, Soft.....	40	No. 1 common and better 4/4.
Do.....	41	No. 2 common and better 4/4.
Do.....	42	Mill run.
Gum.....	43	Firsts and seconds 4/4, red.
Do.....	44	No. 1 common 4/4, red.
Do.....	45	Firsts and seconds 4/4, sap.
Do.....	46	No. 1 common 4/4, sap.
Do.....	47	No. 2 common 4/4.
Do.....	48	Mill run.
Hickory.....	49	Firsts and seconds 8/4.
Do.....	50	No. 1 common 8/4.
Do.....	51	No. 2 common 8/4.
Do.....	52	Mill run.
Maple, Hard.....	53	Firsts and seconds, 4/4.
Do.....	54	No. 1 common 4/4.
Do.....	55	Mill run.
Maple, Soft.....	56	No. 1 common and better 4/4.
Do.....	57	No. 3 common 4/4.
Do.....	58	Log run.
Do.....	59	Mill run.
Oak, Plain.....	60	Firsts and seconds 4/4.
Do.....	61	No. 1 common 4/4.
Do.....	62	No. 2 common 4/4.
Do.....	63	No. 3 common 4/4.
Do.....	64	Mill run.
Oak, Red, quartered.....	65	Firsts and seconds 4/4.
Do.....	66	No. 1 common 4/4.
Do.....	67	No. 2 common 4/4.
Do.....	68	Mill run.
Oak, White, quartered.....	69	Firsts and seconds 4/4.
Do.....	70	No. 1 common 4/4.
Do.....	71	No. 2 common 4/4.
Do.....	72	Mill run.
Poplar.....	73	Firsts and seconds 4/4.
Do.....	74	Saps or selects 4/4.
Do.....	75	No. 1 common 4/4.
Do.....	76	No. 2 common 4/4.
Do.....	77	Mill run.
Tupelo (Bay Poplar).....	78	Firsts and seconds clear, random, 4/4.
Do.....	79	No. 1 common, random, 4/4.
Do.....	80	Mill run.

WHOLESALE PRICES OF LUMBER.

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OPPORTUNITIES FOR PURCHASING NATIONAL FOREST TIMBER.

The National Forests contain nearly 590 billion feet of merchantable stumpage. The mature timber, which constitutes a large part of the total stand, is for sale. The more accessible bodies may be purchased in blocks of practically any desired size up to 100 million feet. Less accessible stumpage which requires a large investment for the construction of transportation facilities may be purchased in larger quantities of sufficient size to justify the investment in improvements. Applications up to 1 billion feet will be approved if the investment required necessitates the purchase of a body of that size under one contract.

The procedure for purchasing National Forest timber is extremely simple. Applications specifying the amount, species, and general location desired may be sent to the offices of the Forest Service at Washington, D. C.; Chicago, Ill.; Missoula, Mont.; Denver, Colo.; Albuquerque, N. Mex.; Ogden, Utah; San Francisco, Cal.; and Portland, Oreg. Advertisement at a fixed minimum price is required by law for at least 30 days. The timber is then awarded to the highest bidder and the sale completed by execution of the contract stating the amount and location of the stumpage, the stumpage rates, and the conditions under which the timber shall be removed.

The contract requirements have been prepared by practical lumbermen and perfected by the experience gained in the administration of several thousand sales. They are adapted to the local conditions as to topography, size of the timber, and logging methods. That they are eminently practical is demonstrated by the fact that some 375 million feet are cut each year under these requirements by lumbermen all over the West.

Sufficient time is permitted for the removal of the amount purchased under local conditions of logging and manufacture. The time is gauged, however, to require continuous operation at a reasonable rate and does not permit the holding of stumpage for speculative increases in value. The timber to be cut is designated by the forest officers. Either clean cutting, or partial cutting taking 70 to 80 per cent of the stumpage, is employed, depending upon the character of the timber and the best methods of securing new forest growth. Simple precautions are required to protect the uncut timber and young growth, and the disposal of slash by burning, either with or without piling, is necessary.

These requirements may increase the cost of logging from 50 to 75 cents a thousand feet over the usual cost on private holdings. The difference is always considered in appraising the value of the stumpage. Furthermore, an operator who buys National Forest timber has to make practically no investment at the outset for his stumpage, has no carrying charges for interest or taxes, and incurs practically no fire risk. He is required simply to pay for the timber as it is removed in advance deposits, which represent usually but the value of a month and a half's cut.

These are obvious advantages, particularly when extended over an operation of 10 or 15 years. As private stumpage is cut out in many of the old lumbering centers, operators will find, in the timber on the National Forests, new opportunities for manufacture under advantageous conditions.

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Walter Mulford

Issued November 13, 1912.

U. S. DEPARTMENT OF AGRICULTURE,
FOREST SERVICE.

HENRY S. GRAVES, Forester.

RECORD OF WHOLESALE PRICES
OF LUMBER.

(PER 1,000 FEET B. M.)

BASED ON ACTUAL SALES MADE F. O. B. MILL FOR

JULY, AUGUST, AND SEPTEMBER, 1912.

FOREST SERVICE.

HENRY S. GRAVES, *Forester.*

ALBERT F. POTTER, *Associate Forester.*

HERBERT A. SMITH, *Editor.*

Branch of Products: MCGARVEY CLINE, in charge.

Washington Office of Products: O. T. SWAN, in charge.

J. C. NELLIS, *Statistician in Forest Products.*

PREFATORY NOTE.

The purposes of the Forest Service in collecting and compiling this record of f. o. b. mill prices is to have a continuous statistical record of such prices of the various commercial woods. The prices given are wholesale, based on actual sales f. o. b. mill, for delivery outside of local territory. Only a few representative grades and the mill run are included. By "mill run" is meant the average of all grades of lumber produced. The record is compiled by States, and is made up from reports received from the largest manufacturers throughout the country.

The Forest Service wishes to acknowledge the courtesy of the manufacturers for their prompt and efficient cooperation.

The Forest Service is engaged in many investigations of interest to lumber manufacturers. The work as now organized comprises studies in the physical properties of wood; air-seasoning and kiln-drying; strength tests upon commercial timbers of the United States; wood preservation, including the study of different preservatives and methods of impregnation; softwood and hardwood distillation; wood pulp and paper; naval stores; and wood utilization, which includes studies of the wood-using industries of various States, the collection and compilation of statistics of forest products, etc. Reports on these investigations are published from time to time, and are available to the trade upon request.

A copy of any of the following recent reports may be obtained by addressing the Editor and Chief, Division of Publications, United States Department of Agriculture, Washington, D. C.:

Forest Service Bulletins:

- 108. Tests of Structural Timbers.
- 109. Distillation of Resinous Wood by Saturated Steam.
- 110. The Specific Heat of Wood.
- 112. Fire-killed Douglas Fir; A Study of its Rate of Deterioration, Usability, and Strength.

Forest Service Circulars:

- 198. Condition of Experimental Chestnut Poles in the Warren-Buffalo and Poughkeepsie-Newton Square Lines After Five and Eight Years' Service.
- 200. Absorption of Creosote by Cell Walls of Wood.
- 206. Commercial Creosotes—With Special Reference to Protection of Wood from Decay.

Division of Publications Circular 11—List of Available Publications of the Forest Service.

SUMMARY.

The advance in wholesale lumber prices during April, May, and June, 1912, continued during the months of July, August, and September. The Pacific coast species which continued to rise were red cedar, Douglas fir, western hemlock, and redwood. Western yellow pine and Sitka spruce failed to follow the advance, but western larch, which showed no change during the second quarter, sold at better prices. In eastern softwoods yellow pine made decided advances; North Carolina pine and hemlock advanced somewhat, while the prices of white pine and spruce made no general change. Among the hardwoods prices were generally higher in the Southern and Central States, except on gum, while in the Northern States ash, basswood, beech, and birch were somewhat lower and maple somewhat higher.

In Washington western red cedar beveled siding No. 1 rose \$2; shop No. 2 over \$3, and the grades of shingles 25 cents to 50 cents. Douglas fir flooring No. 1 V. G. advanced \$2.80 in Oregon and Washington, while timbers 12 inches by 12 inches, average 32 feet, rose about \$1 in both States. The following advances occurred in western hemlock sales in Washington: Flooring Nos. 1 and 2 over \$1, finish Nos. 1 and 2 nearly \$4, dimension No. 1, common, \$1.60, and ship-lap \$1.25. Western larch prices show the following advances in Montana: Flooring A and B \$1.25, finish A and B \$2, drop siding A and B \$1.50, common boards No. 2 over \$2, and dimension No. 1, common, \$4. In Idaho western white pine finish C select advanced \$2 and finish D select declined \$4. Western yellow pine shop No. 1, 6/4, rose 70 cents in California, \$1.15 in Washington, but declined 80 cents in Idaho, while common boards No. 2 rose \$1 in California but declined in both Washington and Idaho. In California redwood sales clears advanced slightly, sap clears declined \$1.25, while common boards No. 1 advanced \$2 and common boards, No. 2, 75 cents. In Washington Sitka spruce shop No. 1 advanced \$1.80, finish No. 2 clear and better declined \$1.33, and flooring No. 2 clear and better more than \$3, but beveled siding B advanced \$2.50 and common boards advanced \$2.

The advance in yellow-pine prices applies almost without exception to all grades in all producing States. Finish B and better, 6 inches and wider, shows the following advances: Arkansas, \$1.43; Louisiana, \$1.36; Mississippi, \$3.16; Alabama, \$1.10; Missouri, 50 cents; Georgia, \$1.80. Dimension No. 1, S1S1E 2 inches by 8 inches, 16 feet, made advances as follows: Texas, \$2.62; Arkansas, \$1.49; Louisiana, \$3.17; Mississippi, \$3.26; Alabama, \$1.55. Mill-run values show the following advances: Texas, \$1.42; Arkansas, \$1.42; Louisiana, \$1.80; Mississippi, 93 cents; Alabama, 88 cents; Missouri, \$2.08; Florida, 63 cents. All grades of North Carolina pine quoted in this Record advanced except dimension 2 inches by 8 inches, 16 feet, which declined slightly in South Carolina and North Carolina, and box edge, 4/4, which advanced in North Carolina but made no change whatever in South Carolina. The advance on No. 1 edge 4/4 amounted in North Carolina to \$1.38.

Hemlock prices were higher in the Lake States, but not generally in the Eastern States. Two-inch piece stuff advanced \$1.08 in Wisconsin, but only 57 cents in Michigan. Boards No. 1 advanced \$1.34 in Wisconsin and \$1.42 in Michigan. In white-pine sales prices obtained for the upper grades were generally lower, while the lower grades sold at advanced prices. Selects C and better declined \$2.80 in Minnesota and \$4.45 in Wisconsin, while boards No. 4 advanced \$1.39 in Minnesota and \$1.37 in Wisconsin, and fencing No. 2 rose \$2.09 in Minnesota and slightly in Wisconsin. Prices of New England and West Virginia spruce were generally lower, while Adirondack values were higher, except in the case of No. 1 and clear, which declined slightly.

Basswood firsts and seconds advanced \$2.20 in Tennessee, while in New York there was a fall of \$1.50. Unselected birch firsts and seconds advanced 65 cents in Michigan, \$1.55 in Wisconsin, and \$1.20 in New York. Hard maple

firsts and seconds advanced \$2.25 in Ohio, \$1.13 in Indiana, 83 cents in Michigan, \$1.82 in Wisconsin, 75 cents in New York, but declined \$3.17 in Pennsylvania. Chestnut values were generally higher throughout the chestnut-producing States. Firsts and seconds advanced slightly in North Carolina and West Virginia, \$2.26 in Tennessee, \$1 in Kentucky, \$2.37 in Virginia, and \$4.53 in Ohio. The prices of plain oak were generally higher except in North Carolina. The following advances are shown in firsts and seconds: Arkansas, \$1.96; Mississippi, \$3.08; Missouri, \$3.60; Tennessee, \$2.14; Kentucky, \$4.60; Virginia, \$2; West Virginia, \$2.41; and Ohio, \$5.33. Yellow poplar values advanced in several States, but in Virginia and Tennessee all grades quoted declined. In other States the advances on firsts and seconds were as follows: North Carolina, nearly \$3; Kentucky, \$2.50; West Virginia, 89 cents; Indiana, nearly \$4. Cypress firsts and seconds advanced \$1.36 in Arkansas, held firm in Louisiana, and in Florida advanced \$1.27. Red gum firsts and seconds declined 82 cents in Arkansas, \$1.50 in Louisiana, but rose \$2 in Mississippi. No. 1 common in both sap and red declined in Arkansas and Louisiana, but not in Mississippi. Tupelo firsts and seconds declined \$2.46 and No. 1 common \$1.45 in Louisiana.

Species.	Line No.	Grade.
Cedar, Western Red.....	1	Beveled siding No. 1, $\frac{3}{4}$ " x 6".
Do.....	2	Shop No. 2, $1\frac{1}{2}$ " x 8".
Do.....	3	Shingles, perfection, 18".
Do.....	4	Shingles, extra clear, $5\frac{1}{2}$ "-16".
Do.....	5	Shingles, Star-A-Star, $6\frac{1}{2}$ "-16".
Do.....	6	Mill run.
Fir, Douglas.....	7	Flooring No. 1, v. g., 1" x 4". K. D.
Do.....	8	Flooring No. 2, v. g., 1" x 4". K. D.
Do.....	9	Flooring No. 2, flat, 1" x 4". K. D.
Do.....	10	Finish No. 2 and better, 6".
Do.....	11	Drop siding, No. 2 slash.
Do.....	12	Dimension, Com., SISE, 2" x 12"-16".
Do.....	13	Car sills, 5" x 8"-36".
Do.....	14	Timbers, 12" x 12", average 32".
Do.....	15	Crossties, 7" x 9".
Do.....	16	Lath, per M.
Do.....	17	Mill run.
Fir, White.....	18	Common boards, 6" and 8".
Do.....	19	Lath, per M.
Do.....	20	Mill run.
Hemlock, Western.....	21	Flooring Nos. 1 and 2, v. g., 1" x 4".
Do.....	22	Finish Nos. 1 and 2, 5" and wider.
Do.....	23	Dimension, No. 1, Com., 2" x 4" to 2" x 8".
Do.....	24	Shiplap, 1".
Do.....	25	Shop No. 1, $1\frac{1}{2}$ " x 8" and wider.
Do.....	26	Mill run.
Larch, Western.....	27	Flooring, A and B (Nos. 1 and 2 clear), 1" x 4"
Do.....	28	Finish, A and B (Nos. 1 and 2 clear), 1" x 8".
Do.....	29	Drop siding, A and B (Nos. 1 and 2 clear), 1" x 6".
Do.....	30	Common boards No. 2, 1" x 8"-16".
Do.....	31	Dimension No. 1, Com., 2" x 8"-16".
Do.....	32	Lath, per M.
Do.....	33	Mill run.
Pine, Sugar.....	34	Firsts and seconds, clear.
Do.....	35	Shop No. 1, 2" x 8" and wider.
Do.....	36	Shop No. 2, 2" x 8" and wider.
Do.....	37	Mill run.
Pine, Western White.....	38	Finish, C select, 8".
Do. (Idaho White).....	39	Finish, D select, 8".
Do.....	40	Beveled siding, B and better, 4" and 6".
Do.....	41	Beveled siding, C, 4" and 6".
Do.....	42	Common boards No. 2, 6" and 8".
Do.....	43	Mill run.
Pine, Western Yellow.....	44	Flooring, B and better (Nos. 1 and 2 clear), 4" and 6"-16".
(Including Western Pine,	45	Finish, B select and better, 1" by 10"-16".
California White Pine,	46	Finish, C select, 8".
New Mexico White	47	Beveled siding, B and better, 4" and 6".
Pine).	48	Beveled siding, C, 4" and 6".
Do.....	49	Shop No. 1, 6/4.
Do.....	50	Shop No. 2, 6/4.
Do.....	51	Common boards, No. 2, 1" x 8"-16".
Do.....	52	Dimension, No. 1, Com., 2" x 8"-16".
Do.....	53	Lath No. 1, per M.
Do.....	54	Mill run.
Redwood.....	55	Clear, 6" to 12", 10' to 20'.
Do.....	56	Sappy clear, 6" to 8", 10' to 20'.
Do.....	57	Common boards No. 1.
Do.....	58	Common boards No. 2.
Do.....	59	Crossties, 6" x 8'-8'.
Do.....	60	Shingles No. 1, per M. (full count.)
Do.....	61	Shingles No. 2, per M. (full count.)
Do.....	62	Mill run.
Spruce, Sitka.....	63	Shop No. 1, 6/4.
Do. (Western Spruce).....	64	Finish No. 2, clear and better, 1" x 12".
Do.....	65	Flooring No. 2, clear and better, 1" x 4".
Do.....	66	Beveled siding, B, $\frac{3}{4}$ " x 6".
Do.....	67	Common boards, 1" x 12".
Do.....	68	Mill run.

RECORD OF WHOLESALE PRICES OF LUMBER.

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	California.	Oregon.	Washington.	Idaho.	Montana.	Colorado.	
1			\$19.35				1
2			18.67				2
3			2.72				3
4			2.29				4
5			2.00				5
6			16.37				6
7		\$27.25	26.63				7
8		23.93	23.01				8
9		16.91	15.61				9
10		22.00	21.21				10
11		17.00	17.38				11
12		10.06	9.85	\$11.31			12
13		16.33	15.23				13
14		10.67	10.80				14
15		9.35	9.42				15
16		1.83	1.63				16
17	\$12.75	12.68	12.28	12.67			17
18			8.64	10.44			18
19				9.33			19
20							20
21			22.80				21
22			23.13				22
23			9.50				23
24		9.33	9.21				24
25							25
26			10.83				26
27				20.33	\$19.00		27
28					23.42		28
29				18.68	18.70		29
30				10.13	15.53		30
31				10.45	14.18		31
32				1.28			32
33				12.77	12.98		33
34							34
35							35
36	18.06						36
37							37
38				35.79			38
39				24.50			39
40				23.90			40
41				20.34			41
42				16.38			42
43				18.75			43
44				35.00			44
45				38.63			45
46				31.75			46
47				23.00			47
48				20.36			48
49	24.77		26.25	25.20			49
50	15.88		17.12	16.92			50
51	14.01		13.98	13.64			51
52	14.33			11.92		\$14.00	52
53			2.08	2.19			53
54	13.45			13.75			54
55	23.33						55
56	18.17						56
57	15.20						57
58	11.90						58
59							59
60	1.87						60
61	1.43						61
62	14.33						62
63			18.33				63
64			30.67				64
65			27.67				65
66			17.67				66
67			11.50				67
68			14.08				68

Species.	Line No.	Grade.
Hemlock (Lake States).....	1	2" piece stuff, S1S1E, 2" x 4"-16'.
Do.....	2	Boards, No. 1, S1S, 1" x 8"-16'.
Do.....	3	Timbers, rough, 4" x 4" to 8" x 8"-16'.
Do.....	4	Fencing No. 1, S1S, 1" x 6'.
Do.....	5	Lath No. 1, 3/4"-4'.
Do.....	6	Mill run.
Hemlock (Eastern States).....	7	8/4 merch. 4" to 12", 10' to 20'.
Do.....	8	4/4 merch. 6" and 8"-16'.
Do.....	9	4/4 merch. 10" and 12"-16'.
Do.....	10	4/4 merch. boards, 6" and up, S1S, clipped, 12'-16'.
Do.....	11	4/4 boards, No. 2, 1" x 4"-12", 6'-20'.
Do.....	12	Mill run, mill culls out.
Do.....	13	Mill culls.
Do.....	14	Mill run.
Pine, North Carolina.....	15	Flooring, No. 2, 1" x 4" x 10'-16'.
Do.....	16	Flooring, No. 3, 1" x 4" x 10'-16'.
Do.....	17	Dimension (air dried), 2" x 8'-16' and under.
Do.....	18	Roofers, 1" x 8", D. & M.
Do.....	19	Partition No. 1, 13/16" x 3 1/2", 10'-16'.
Do.....	20	No. 1 edge 4/4, under 12".
Do.....	21	Box edge 4/4, under 12".
Do.....	22	Mill run.
Pine, White.....	23	Selects C and better, 5/4 (M. L.).
Do.....	24	Inch finish, C selects, 10" (M. L.).
Do.....	25	Shop No. 1, 8/4 (M. L.).
Do.....	26	Shop No. 3, 5/4 (M. L.).
Do.....	27	Beveled siding, C, 6" x 16'.
Do.....	28	Boards No. 2, 1" x 8"-16'.
Do.....	29	Boards No. 3, 12", 10'-20'.
Do.....	30	Boards No. 4, mixed widths, 10'-20'.
Do.....	31	Fencing No. 2, S1S, 6" x 16'.
Do.....	32	Lath No. 1 (W. P.).
Do.....	33	Lath No. 1 (mixed).
Do.....	34	Mill run.
Pine, Yellow.....	35	Flooring, B, v, g. 13/16" x 3 1/2".
Do. (Mississippi Valley Mills).....	36	Flooring, No. 2, D. & M., 1" x 4".
Do.....	37	Flooring, No. 2, S2S and C. M., 1" x 6".
Do.....	38	Flooring, B, flat, 13/16" x 3 1/2".
Do.....	39	Finish, B and better, 6" and wider.
Do.....	40	Dimension No. 1, S1S1E, 2" x 8"-16'.
Do.....	41	Com. boards, No. 1, S2S, 1" x 10".
Do.....	42	Com. boards, No. 2, S2S, 1" x 8".
Do.....	43	Com. boards, No. 2, S2S, 1" x 12".
Do.....	44	Timbers S1S1E, 6" x 8"-16'.
Do.....	45	Car siding, B and better, 1" x 4" and 6" x 9'-18'.
Do.....	46	Com. car lining, No. 1, 1" x 6" x 10'-20'.
Do.....	47	Lath No. 1, 3/4".
Do.....	48	Mill run.
Pine, Yellow.....	49	Finish, B and better, 6" and wider.
Do. (Atlantic Coast Mills).....	50	Flooring, B and better, heart rift, 13/16" x 2 1/2".
Do.....	51	Flooring, B and better, sap rift, 13/16" x 2 1/2".
Do.....	52	Flooring, B, heart rift, 13/16" x 2 1/2".
Do.....	53	Flooring, B, sap rift, 13/16" x 2 1/2".
Do.....	54	Flooring, B, sap flat, 13/16" x 3 1/2".
Do.....	55	Com. boards, No. 1, S2S, 1" x 10" x 10'-16'.
Do.....	56	Com. boards, No. 2, S2S, 1" x 10" x 10'-16'.
Pine, Yellow, merch. grade Sall).....	57	Plank and dimensions:
Do.....	58	Sizes 2" x 6" to 8" x 8", average 24'.
Do.....	59	Sizes 2" x 9" to 10" x 10", average 24'.
Do.....	60	Sizes 2" x 12" to 12" x 12", average 24'.
Do.....	61	Sizes 2" x 14" to 14" x 14", average 24'.
Do.....	62	Sizes 2" x 16" to 16" x 16", average 24'.
Do.....	63	Mill run.
Spruce (New England).....	64	Merch. frames 8" and under, 20' and under.
Do.....	65	Merch. frames 10", 20' and under.
Do.....	66	Merch. random 10", 8' to 20'.
Do.....	67	Merch. 2" x 7" and under, 8' to 20'.
Do.....	68	Merch. 2" x 8" and up, 8' to 20'.
Do.....	69	Lath, 1 1/2".
Do.....	70	Mill run.
Spruce (Adirondack).....	71	Mill run, mill culls out.
Do.....	72	No. 1 and clear.
Do.....	73	No. 2.
Do.....	74	No. 3.
Do.....	75	Mill culls.
Do.....	76	Mill run.
Spruce (West Virginia).....	77	Merch. frames 3" x 4" to 8" x 8", 10'-16'.
Do.....	78	Merch. frames 2" x 12" to 12" x 12", 10'-16'.
Do.....	79	Boards, merch., 1" x 12", 10'-20'.
Do.....	80	Boards, box, 1" x 4"-12".
Do.....		Mill run.

RECORD OF WHOLESALE PRICES OF LUMBER.

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Species.	Line No.	Grade.
Hemlock (Lake States).....	1	2" piece stuff, S1S1E, 2" x 4'-16'.
Do.....	2	Boards, No. 1, S1S, 1" x 8'-16'.
Do.....	3	Timbers, rough, 4" x 4' to 8" x 8'-1'.
Do.....	4	Fencing No. 1, S1S, 1" x 6'.
Do.....	5	Lath, No. 1, 3/4"-4'.
Do.....	6	Mill run.
Hemlock (Eastern States).....	7	8/4 merch. 4" to 12", 10' to 20'.
Do.....	8	4/4 merch. 6" and 8'-16'.
Do.....	9	4/4 merch. 10" and 12'-16'.
Do.....	10	4/4 merch. boards, 6" and up, S1S, clipped, 12'-16'.
Do.....	11	4/4 boards, No. 2, 1" x 4'-12", 6'-20'.
Do.....	12	Mill run, mill culls out.
Do.....	13	Mill culls.
Do.....	14	Mill run.
Pine, North Carolina.....	15	Flooring, No. 2, 1" x 4" x 10'-16'.
Do.....	16	Flooring, No. 3, 1" x 4" x 10'-16'.
Do.....	17	Dimension (air dried), 2" x 8'-16' and under.
Do.....	18	Roofers, 1" x 8", D. & M.
Do.....	19	Partition No. 1, 13/16" x 3 1/2", 10'-16'.
Do.....	20	No. 1 edge 4/4, under 12".
Do.....	21	Box edge 4/4, under 12".
Do.....	22	Mill run.
Pine, White.....	23	Selects C and better, 5/4 (M. L.).
Do.....	24	Inch finish, C selects, 10" (M. L.).
Do.....	25	Shop No. 1, 8/4 (M. L.).
Do.....	26	Shop No. 3, 5/4 (M. L.).
Do.....	27	Beveled siding, C, 6" x 16'.
Do.....	28	Boards No. 2, 1" x 8'-16'.
Do.....	29	Boards No. 3, 12", 10'-20'.
Do.....	30	Boards No. 4, mixed widths, 10'-20'.
Do.....	31	Fencing No. 2, S1S, 6" x 16'.
Do.....	32	Lath No. 1 (W. P.).
Do.....	33	Lath No. 1 (mixed).
Do.....	34	Mill run.
Pine, Yellow.....	35	Flooring, B, v. g. 13/16" x 3 1/2".
Do. (Mississippi Valley Mills).....	36	Flooring, No. 2, D. & M., 1" x 4".
Do.....	37	Flooring, No. 2, S2S and C. M., 1" x 6".
Do.....	38	Flooring, B, flat, 13/16" x 3 1/2".
Do.....	39	Finish, B and better, 6" and wider.
Do.....	40	Dimension No. 1, S1S1E, 2" x 8'-16'.
Do.....	41	Com. boards, No. 1, S2S, 1" x 10'.
Do.....	42	Com. boards, No. 2, S2S, 1" x 8'.
Do.....	43	Com. boards, No. 2, S2S, 1" x 12'.
Do.....	44	Timbers S1S1E, 6" x 8'-16'.
Do.....	45	Car siding, B and better, 1" x 4" and 6" x 9'-18'.
Do.....	46	Com. car lining, No. 1, 1" x 6" x 10'-20'.
Do.....	47	Lath No. 1, 3/4".
Do.....	48	Mill run.
Pine, Yellow.....	49	Finish, B and better, 6" and wider.
Do. (Atlantic Coast Mills).....	50	Flooring, B and better, heart rift, 13/16" x 2 1/2".
Do.....	51	Flooring, B and better, sap rift, 13/16" x 2 1/2".
Do.....	52	Flooring, B, heart rift, 13/16" x 2 1/2".
Do.....	53	Flooring, B, sap rift, 13/16" x 2 1/2".
Do.....	54	Flooring, B, sap flat, 13/16" x 3 1/2".
Do.....	55	Com. boards, No. 1, S2S, 1" x 10' x 10'-16'.
Do.....	56	Com. boards, No. 2, S2S, 1" x 10' x 10'-16'.
Pine, Yellow, merch. grade (Sail).....	57	Plank and dimensions:
Do.....	58	Sizes 2" x 6" to 8" x 8", average 24'.
Do.....	59	Sizes 2" x 9" to 10" x 10", average 24'.
Do.....	60	Sizes 2" x 12" to 12" x 12", average 24'.
Do.....	61	Sizes 2" x 14" to 14" x 14", average 24'.
Do.....	62	Sizes 2" x 16" to 16" x 16", average 24'.
Do.....	63	Mill run.
Spruce (New England).....	64	Merch. frames 8" and under, 20' and under.
Do.....	65	Merch. frames 10", 20', and under.
Do.....	66	Merch. random 10", 8' to 20'.
Do.....	67	Merch. 2" x 7" and under, 8' to 20'.
Do.....	68	Merch. 2" x 8" and up, 8' to 20'.
Do.....	69	Lath, 1 1/4".
Do.....	70	Mill run.
Spruce (Adirondack).....	71	Mill run, mill culls out.
Do.....	72	No. 1 and clear.
Do.....	73	No. 2.
Do.....	74	No. 3.
Do.....	75	Mill culls.
Do.....	76	Mill run.
Spruce (West Virginia).....	77	Merch. frames, 3" x 4" to 8" x 8", 10'-16'.
Do.....	78	Merch. frames, 2" x 12" to 12" x 12", 10'-16'.
Do.....	79	Boards, merch., 1" x 12", 10'-20'.
Do.....	80	Boards, box, 1" x 4'-12".
Do.....	81	Mill run.

RECORD OF WHOLESALE PRICES OF LUMBER.

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Species.	Line No.	Grade.
Ash..	1	Firsts and seconds 4/4.
Do.....	2	No. 1 common 4/4.
Do.....	3	No. 2 common 4/4.
Basswood.....	4	Mill run.
Do.....	5	Firsts and seconds 4/4.
Do.....	6	No. 1 common 4/4.
Do.....	7	No. 2 common 4/4.
Do.....	8	Log run.
Do.....	9	Mill run.
Beech.....	10	Firsts and seconds 4/4.
Do.....	11	No. 1 common 4/4.
Do.....	12	Mill run.
Birch, unselected.....	13	Firsts and seconds 4/4.
Do.....	14	No. 1 common 4/4.
Do.....	15	No. 2 common 4/4.
Do.....	16	No. 2 common and better 4/4 or log run.
Do.....	17	Mill run.
Chestnut.....	18	Firsts and seconds 4/4.
Do.....	19	No. 1 common 4/4.
Do.....	20	Sound wormy 4/4.
Do.....	21	No. 3 common 4/4.
Do.....	22	Mill run.
Cottonwood.....	23	Firsts and seconds 4/4, 6" to 12".
Do.....	24	Box boards 4/4, 13" to 17".
Do.....	25	No. 1 common 4/4.
Do.....	26	No. 2 common 4/4.
Do.....	27	Mill run.
Cypress.....	28	Firsts and seconds clear 4/4.
Do.....	29	Selects 4/4.
Do.....	30	Shop, No. 1, 4/4.
Do.....	31	No. 1 common 4/4, random widths.
Do.....	32	No. 2 common 4/4, random widths.
Do.....	33	Mill run.
Cypress, shingles.....	34	Bests 5".
Do.....	35	Primes 5".
Elm, Rock.....	36	Firsts and seconds, 8/4.
Do.....	37	No. 1 common and better 8/4.
Do.....	38	No. 2 common and better 8/4.
Do.....	39	Mill run.
Elm, Soft.....	40	No. 1 common and better 4/4.
Do.....	41	No. 2 common and better 4/4.
Do.....	42	Mill run.
Gum.....	43	Firsts and seconds 4/4, red.
Do.....	44	No. 1 common 4/4, red.
Do.....	45	Firsts and seconds 4/4, sap.
Do.....	46	No. 1 common 4/4, sap.
Do.....	47	No. 2 common 4/4.
Do.....	48	Mill run.
Hickory.....	49	Firsts and seconds 8/4.
Do.....	50	No. 1 common 8/4.
Do.....	51	No. 2 common 8/4.
Do.....	52	Mill run.
Maple, Hard.....	53	Firsts and seconds 4/4.
Do.....	54	No. 1 common 4/4.
Do.....	55	Mill run.
Maple, Soft.....	56	No. 1 common and better 4/4.
Do.....	57	No. 3 common 4/4.
Do.....	58	Log run.
Do.....	59	Mill run.
Oak, Plain.....	60	Firsts and seconds 4/4.
Do.....	61	No. 1 common 4/4.
Do.....	62	No. 2 common 4/4.
Do.....	63	No. 3 common 4/4.
Do.....	64	Mill run.
Oak, Red, quartered.....	65	Firsts and seconds 4/4.
Do.....	66	No. 1 common 4/4.
Do.....	67	No. 2 common 4/4.
Do.....	68	Mill run.
Oak, White, quartered.....	69	Firsts and seconds 4/4.
Do.....	70	No. 1 common 4/4.
Do.....	71	No. 2 common 4/4.
Do.....	72	Mill run.
Poplar, yellow.....	73	Firsts and seconds 4/4.
Do.....	74	Saps or selects 4/4.
Do.....	75	No. 1 common 4/4.
Do.....	76	No. 2 common 4/4.
Do.....	77	Mill run.
Tupelo (Bay Poplar).....	78	Firsts and seconds clear, random, 4/4.
Do.....	79	No. 1 common, random, 4/4.
Do.....	80	Mill run.

RECORD OF WHOLESALE PRICES OF LUMBER.

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	Arkan- sas.	Loui- siana.	Missis- sippi.	Ala- bama.	Mis- souri.	Texas.	Flor- ida.	South Caro- lina.	North Caro- lina.	Ten- nes- see.	Ken- tucky.	Vir- ginia.	West Vir- ginia.	
1	\$37.53	\$37.00	\$35.00						\$39.00	\$37.42	\$41.63		\$41.60	1
2	23.03	20.08	23.25						24.67	23.08	25.40		28.40	2
3	11.85	10.50	11.33						12.67	12.63	15.71	11.67	16.40	3
4		18.67									19.75			4
5									33.00	32.14		32.33		5
6									23.00	21.55		22.33		6
7									13.33	12.56		11.33		7
8										20.69	22.33	21.38	22.18	8
9										17.00				9
10														10
11											12.67		11.50	11
12														12
13														13
14														14
15													19.40	15
16														16
17									42.17	40.47	41.20	41.80	43.73	17
18									29.83	27.02	28.10	30.60	32.19	18
19									11.58	12.81	14.33	12.10	13.95	19
20									7.30	8.16	9.25	7.30	9.22	20
21										18.44		16.40	17.25	21
22														22
23	26.43	23.80	27.25											23
24	47.14	43.80	44.75											24
25	21.50	19.40	20.25											25
26	16.00	15.50	15.25											26
27		20.62												27
28	34.50	35.28					\$36.17							28
29	29.04	30.27					31.50							29
30	18.36	18.07					21.17							30
31	13.08	15.23					16.08							31
32	8.91	9.70					12.33							32
33	19.63	20.62							18.13					33
34		3.46												34
35		2.65												35
36														36
37														37
38														38
39	16.33													39
40														40
41	18.50													41
42			15.67											42
43	30.33	30.38	33.33											43
44	17.97	17.75	19.50											44
45	16.94	16.40	17.50											45
46	12.22	11.08	13.50											46
47	10.29	8.60	11.00											47
48	13.47	14.67				\$11.83								48
49	50.13									51.00				49
50	26.57									25.67				50
51	12.00									10.00				51
52	31.67									22.33	22.00		20.33	52
53													28.83	53
54									17.00				19.00	54
55	16.83									15.83				55
56													20.67	56
57														57
58	17.00				18.00								15.50	58
59										15.11				59
60	41.77	40.57	42.83		40.60				41.00	39.02	43.60	41.50	46.91	60
61	23.95	21.67	23.86		26.80				27.80	25.43	28.13	27.75	33.55	61
62	12.89	10.75	13.50		13.40				15.80	13.75	17.67	16.10	19.63	62
63	6.77	6.00							8.67	8.14	10.00	7.60	9.86	63
64	20.50	21.25			16.25					20.75	18.28	15.00		64
65	51.75		54.33							51.00	54.83			65
66	29.25		32.67							30.00	34.50			66
67	15.63		18.33							18.10	21.50			67
68	34.33													68
69	68.23		68.00							68.18	68.50			69
70	40.85		40.75							39.92	43.14			70
71	20.67		20.25							20.91	24.00			71
72	44.74									44.67				72
73									52.80	47.33	50.57	46.25	51.89	73
74									37.60	35.81	38.70	35.00	37.21	74
75									29.20	26.68	30.79	27.75	33.80	75
76									15.83	14.76	18.80	15.25	21.64	76
77									22.50	24.60		23.33		77
78	20.00	19.04												78
79	13.67	13.82												79
80		13.83							\$13.67					80

Species.	Line No.	Grade.
Ash.....	1	Firsts and seconds 4/4.
Do.....	2	No. 1 common 4/4.
Do.....	3	No. 2 common 4/4.
Do.....	4	Mill run.
Basswood.....	5	Firsts and seconds 4/4.
Do.....	6	No. 1 common 4/4.
Do.....	7	No. 2 common 4/4.
Do.....	8	Log run.
Do.....	9	Mill run.
Beech.....	10	Firsts and seconds 4/4.
Do.....	11	No. 1 common 4/4.
Do.....	12	Mill run.
Birch, unselected.....	13	Firsts and seconds 4/4.
Do.....	14	No. 1 common 4/4.
Do.....	15	No. 2 common 4/4.
Do.....	16	No. 2 common and better 4/4 or log run.
Do.....	17	Mill run.
Chestnut.....	18	Firsts and seconds 4/4.
Do.....	19	No. 1 common 4/4.
Do.....	20	Sound wormy 4/4.
Do.....	21	No. 3 common 4/4.
Do.....	22	Mill run.
Cottonwood.....	23	Firsts and seconds 4/4, 6" to 12".
Do.....	24	Boxboards 4/4, 13" to 17".
Do.....	25	No. 1 common 4/4.
Do.....	26	No. 2 common 4/4.
Do.....	27	Mill run.
Cypress.....	28	Firsts and seconds clear 4/4.
Do.....	29	Selects 4/4.
Do.....	30	Shop, No. 1, 4/4.
Do.....	31	No. 1 common 4/4, random widths.
Do.....	32	No. 2 common 4/4, random widths.
Do.....	33	Mill run.
Cypress, shingles.....	34	Bests 5".
Do.....	35	Primes 5".
Elm, Rock.....	36	Firsts and seconds, 8/4.
Do.....	37	No. 1 common and better 8/4.
Do.....	38	No. 2 common and better 8/4.
Do.....	39	Mill run.
Elm, Soft.....	40	No. 1 common and better 4/4.
Do.....	41	No. 2 common and better 4/4.
Do.....	42	Mill run.
Gum.....	43	Firsts and seconds 4/4, red.
Do.....	44	No. 1 common 4/4, red.
Do.....	45	Firsts and seconds 4/4, sap.
Do.....	46	No. 1 common 4/4, sap.
Do.....	47	No. 2 common 4/4.
Do.....	48	Mill run.
Hickory.....	49	Firsts and seconds 8/4.
Do.....	50	No. 1 common 8/4.
Do.....	51	No. 2 common 8/4.
Do.....	52	Mill run.
Maple, Hard.....	53	Firsts and seconds, 4/4.
Do.....	54	No. 1 common 4/4.
Do.....	55	Mill run.
Maple, Soft.....	56	No. 1 common and better 4/4.
Do.....	57	No. 3 common 4/4.
Do.....	58	Log run.
Do.....	59	Mill run.
Oak, Plain.....	60	Firsts and seconds 4/4.
Do.....	61	No. 1 common 4/4.
Do.....	62	No. 2 common 4/4.
Do.....	63	No. 3 common 4/4.
Do.....	64	Mill run.
Oak, Red, quartered.....	65	Firsts and seconds 4/4.
Do.....	66	No. 1 common 4/4.
Do.....	67	No. 2 common 4/4.
Do.....	68	Mill run.
Oak, White, quartered.....	69	Firsts and seconds 4/4.
Do.....	70	No. 1 common 4/4.
Do.....	71	No. 2 common 4/4.
Do.....	72	Mill run.
Poplar, yellow.....	73	Firsts and seconds 4/4.
Do.....	74	Saps or selects 4/4.
Do.....	75	No. 1 common 4/4.
Do.....	76	No. 2 common 4/4.
Do.....	77	Mill run.
Tupelo (Bay Poplar).....	78	Firsts and seconds clear, random, 4/4.
Do.....	79	No. 1 common, random, 4/4.
Do.....	80	Mill run.

RECORD OF WHOLESALE PRICES OF LUMBER.

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	Ohio.	Indiana.	Illinois.	Michigan.	Wisconsin.	Pennsylvania.	New York.	Connecticut.	Massachusetts.	New Hampshire.	Vermont.	Maine.	Maryland.
1	\$41.00	\$42.77		\$38.20	\$39.33		36.67						
2	28.29	27.15		25.00	24.00	\$28.17	\$26.40						
3	18.50	16.33		16.60	15.50								
4				20.12	18.33		19.83	\$17.50	\$19.33	\$20.00	\$18.00		
5	32.00	35.00		35.60	35.15		30.00				31.00		
6	22.67	23.83		25.00	23.70		25.10						
7		17.38		17.30	17.30						15.00		
8	21.25	24.38		24.21	23.70	22.29	22.56		19.33	21.33	22.00		
9				19.71	18.60		20.25	16.67		18.33	19.33		
10	25.67			24.75			22.33						
11		17.50		16.75		15.83	16.20						
12	15.20	15.50		13.75		12.71	13.42		12.67	14.83	15.00		
13				36.15	37.02		34.20				29.33		
14				21.86	21.00						22.00		
15				14.21	13.14								
16				23.03	22.90		20.44			19.66	21.33		
17				18.17	17.67		16.40	14.67	15.17	16.71			
18	39.20					17.17	34.00						
19	29.50					26.25	26.33						
20	16.67					15.88							
21						13.33							
22						16.28	19.25	18.40	19.14	18.33			
23													
24													
25													
26													
27											15.67		
28													
29													
30													
31													
32													
33													
34													
35													
36		37.00											
37		27.67											
38				26.70	22.22								
39	16.33												
40	27.00	22.40		26.33	27.17								
41	20.67	21.17			20.25								
42	15.67	18.11			15.40		18.00						
43													
44													
45													
46													
47													
48		17.67											
49	48.71	47.11				46.67							
50	31.67	31.67				28.33							
51	21.83	18.40											
52	27.67	28.75							20.33				
53	26.50	27.13		29.86	28.00	25.33	30.75						
54	18.67	19.83		21.33	20.15	18.00	21.05				21.00		
55	15.33			15.46	15.23	15.75	16.79		15.83	16.50	16.20		
56		20.67		22.88	23.67	21.30	20.67						
57				9.67	9.75								
58	18.00	19.38		18.88	17.89	17.00	18.92						
59				14.92			14.75		11.58	13.83			
60	43.50	42.13			41.75	35.33	41.33						
61	28.63	27.93	\$29.67		27.50	27.00	27.86			26.67			
62	18.88	18.09	17.00		18.25								
63	12.38	10.00			10.25		19.39		19.50	19.50	18.43		
64													
65		54.00											
66		33.56											
67		20.38											
68													
69	69.00	72.50											
70	43.25	42.00											
71	26.67	25.22											
72	34.00												
73	49.20	49.43											
74	40.00	42.20											
75	32.83	32.00											
76	21.00	19.50											
77						24.50							
78													
79													
80													

OPPORTUNITIES FOR PURCHASING NATIONAL FOREST TIMBER.

The National Forests contain nearly 590 billion feet of merchantable stumpage. The mature timber, which constitutes a large part of the total stand, is for sale. The more accessible bodies may be purchased in blocks of practically any desired size up to 100 million feet. Less accessible stumpage which requires a large investment for the construction of transportation facilities may be purchased in larger quantities of sufficient size to justify the investment in improvements. Applications up to 1 billion feet will be approved if the investment required necessitates the purchase of a body of that size under one contract.

The procedure for purchasing National Forest timber is extremely simple. Applications specifying the amount, species, and general location desired may be sent to the offices of the Forest Service at Washington, D. C.; Chicago, Ill.; Missoula, Mont.; Denver, Colo.; Albuquerque, N. Mex.; Ogden, Utah; San Francisco, Cal.; and Portland, Oreg. Advertisement at a fixed minimum price is required by law for at least 30 days. The timber is then awarded to the highest bidder and the sale completed by execution of the contract stating the amount and location of the stumpage, the stumpage rates, and the conditions under which the timber shall be removed.

The contract requirements have been prepared by practical lumbermen and perfected by the experience gained in the administration of several thousand sales. They are adapted to the local conditions as to topography, size of the timber, and logging methods. That they are eminently practical is demonstrated by the fact that some 375 million feet are cut each year under these requirements by lumbermen all over the West.

Sufficient time is permitted for the removal of the amount purchased under local conditions of logging and manufacture. The time is gauged, however, to require continuous operation at a reasonable rate and does not permit the holding of stumpage for speculative increases in value. The timber to be cut is designated by the forest officers. Either clean cutting, or partial cutting taking 70 to 80 per cent of the stumpage, is employed, depending upon the character of the timber and the best methods of securing new forest growth. Simple precautions are required to protect the uncut timber and young growth, and the disposal of slash by burning, either with or without piling, is necessary.

These requirements may increase the cost of logging from 50 to 75 cents a thousand feet over the usual cost on private holdings. The difference is always considered in appraising the value of the stumpage. Furthermore, an operator who buys National Forest timber has to make practically no investment at the outset for his stumpage, has no carrying charges for interest or taxes, and incurs practically no fire risk. He is required simply to pay for the timber as it is removed in advance deposits, which represent usually but the value of a month and a half's cut.

These are obvious advantages, particularly when extended over an operation of 10 or 15 years. As private stumpage is cut out in many of the old lumbering centers, operators will find, in the timber on the National Forests, new opportunities for manufacture under advantageous conditions.

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Issued October 31, 1912.

U. S. DEPARTMENT OF AGRICULTURE,
BUREAU OF STATISTICS—BULLETIN 96.

VICTOR H. OLMSTED, Chief of Bureau.

Walter H. Hays

EXPORTS OF
FARM AND FOREST PRODUCTS,
1909-1911,

BY COUNTRIES TO WHICH CONSIGNED.

DIVISION OF PRODUCTION AND DISTRIBUTION.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.

1912.

LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF AGRICULTURE,
BUREAU OF STATISTICS,

Washington, D. C., June 20, 1912.

SIR: I have the honor to transmit herewith a compilation of statistics of the exports of farm and forest products from the United States for the year ending June 30, 1911, with those for two previous years given for comparison. The data have been derived from the Bureau of Statistics of the Department of Commerce and Labor, and the work of compiling has been done by the Division of Production and Distribution, Bureau of Statistics, Department of Agriculture.

This report is a continuation of a series of bulletins on the same subject designed for the use of this department and to meet the demands of a large number of correspondents. They contain an arrangement of the statistics and a determination of totals, with various comparisons, not presented in any other publication.

It is respectfully recommended that this report be published as Bulletin 96 of this bureau.

Very respectfully,

VICTOR H. OLMSTED,
Chief of Bureau.

Hon. JAMES WILSON,
Secretary of Agriculture.

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EXPLANATION OF TERMS.

IMPORTS.—Goods from a foreign country entered at a customhouse.

IMPORTS FOR CONSUMPTION.—The term “entry for consumption” is the technical name of the import entry made at the customhouse, and does not imply that the goods will be actually consumed, but simply that they have been delivered into the custody of the importer and that the duties have been paid on the dutiable portion. Some of them may be afterwards exported.

FOREIGN EXPORTS OR REEXPORTS.—Goods which have been imported into this country, either for reexport or for consumption, and are afterwards exported, having undergone no change in form or condition or enhancement in value by the application of labor in the United States.

DOMESTIC EXPORTS.—Goods produced and manufactured from either domestic or imported raw materials in this country and shipped to foreign countries.

TRANSIT OR IN-TRANSIT TRADE.—Goods from a foreign country passing through the United States on the way to the same or another foreign country.

TRANSSHIPMENT TRADE.—Goods from a foreign country received at a United States port and there reshipped to a foreign country without being entered as an import into this country.

In-transit and transshipment trade is not included in the imports and exports of the United States, but is reported separately.

THE COUNTRY OF CONSIGNMENT is that which is mentioned in the exporting or importing documents as the one to which or from which the merchandise is to be shipped. The regulations of the Bureau of Statistics, Department of Commerce and Labor, are:

Collectors will consider the country in which merchandise was invoiced as the country whence the same was imported into the United States.

In export statements the countries stated should be, so far as can be ascertained, those for which the exports are destined for a market. * * * Exporters will be required to state in their manifests of goods exported the country of ultimate destination.

The country from which or to which goods are consigned may or may not be the country of origin or ultimate destination, as the case may be; the foregoing regulation with regard to the country of ultimate destination in export statements does not result in a material representation of countries of ultimate destination in place of countries of consignment in the records of the exports of this country, when these two countries are not the same.

VALUES.—The values of imported articles subject to *ad valorem* duties are defined by the Act of Congress of June 10, 1890, as—

The actual market value or wholesale price of such merchandise as bought and sold in usual wholesale quantities at the time of exportation to the United States in the principal markets of the country from whence imported, and in the condition in which such merchandise is there bought for exportation to the United States or consigned to the United States for sale, including the value of all cartons, cases, crates, boxes, sacks, and coverings of any kind, and all other costs, charges, and expenses incident to placing the merchandise in condition ready for shipment to the United States.

The value of all other imports, whether subject to specific duty or free of duty, is also determined according to the law just quoted.

The value of domestic exports is their declared value at the time of exportation in the ports of the United States whence they are exported, which the law requires to be stated under oath with penalty for misstatement.

The value of foreign exports when shipped directly from bonded warehouses (usually dutiable goods) is their import value, but when not shipped from bonded warehouses (usually free goods) the value is determined in the same manner as that of domestic exports.

Goods in transit through the United States from one foreign country to another are valued in the same manner as imports.

Valuation deceptions.—The value of imported articles subject to *ad valorem* duties is believed to be determined with more accuracy, according to the legal method of valuation, than the value of imports with specific duties or free of duty, or the value of exported articles; the valuations of dutiable imports and of exports dutiable in foreign countries tend to understatement; and the valuations of imports that are free of duty are liable to inflation for the purpose of trade deception.

WEIGHTS.—In the official trade returns of the United States the weights of articles exported are usually net weights, and also the weights of all imports, except those which are subject to a specific duty levied upon the weight of the packages, including the weight of the article itself, together with some or all of its coverings.

All tons mentioned in this bulletin, except where it is otherwise stated, are long tons of 2,240 pounds.

DISCREPANCIES IN FOREIGN TRADE STATISTICS of various countries are partly due to different methods of estimating values, of determining countries of origin and destination, and of classifying merchandise, and to differences in dates. The United States does not regard a c. i. f. value (cost, insurance, freight) as the value of either exports or imports (except some foreign exports), while the United Kingdom, for instance, includes these in the value of its imports. It is said that these charges are often erroneously included by British shippers in their statement of export values, especially when the selling price includes insurance and freight.

In consequence of various sources of discrepancy, it is generally futile to undertake to balance an export of this country by any official statement of import into a foreign country, and often there is not an approximate agreement.

NONCONTIGUOUS POSSESSIONS.—The "noncontiguous" possessions of the United States are all those not included between Canada on the north and Mexico and the Gulf of Mexico on the south, and between the Atlantic and Pacific oceans.

The trade returns of all the possessions of this country, except the Philippine Islands, are included in the total trade of the United States. In the trade statistics for any noncontiguous possession, all other noncontiguous possessions, except the Philippine Islands, are included with the United States; thus, shipments from Hawaii to Porto Rico are included in the total shipments from Hawaii to the United States.

ABBREVIATION.—"n. e. s."=not elsewhere specified.

EXPORTS OF DOMESTIC FARM AND FOREST PRODUCTS, 1909-1911

GENERAL SURVEY.

The exports of domestic farm and forest products during the year ending June 30, 1911, valued at \$1,031,000,000, show an increase over the preceding year of nearly \$160,000,000, and, with the exception of 1907, are larger than for any previous year. The farm products exported during the year form 51.2 per cent of the total exports of domestic merchandise, as compared with 50.9 per cent in 1910 and 55.1 per cent in 1909. The domestic and foreign farm products exported minus the imports of the same commodities show a balance of trade of \$365,000,000 in favor of the United States in 1911, as compared with \$198,000,000 in 1910 and \$274,000,000 in 1909. Exports of domestic forest products in 1911 show an increase of \$18,000,000 compared with the preceding year, and are valued at \$103,000,000, which was more than for any previous year. The foreign forest products reexported for the same period were valued at more than \$7,600,000. (Tables 1 and 2.)

Exports of domestic farm products consigned to Europe in 1911 were valued at \$877,000,000, an increase of \$136,000,000 over the preceding year. Consignments to other grand divisions for the same period show an increase of \$10,000,000 each to North America and to Asia, and \$2,000,000 to South America. Domestic forest products shipped to Europe in 1911 were valued at \$56,000,000, an increase of \$8,000,000 compared with 1910 and \$13,000,000 more than in 1909. The same commodities sent to North American countries were valued at nearly \$25,000,000, an increase of more than \$5,000,000 over the preceding year and nearly \$11,000,000 more than in 1909. (Table 3.)

As shown in Table 4, 40 per cent of the consignments of domestic farm products were sent to the United Kingdom; 20 per cent to Germany; and the remaining 40 per cent was consigned to 89 different countries. The farm products consigned to the United Kingdom were valued at \$413,000,000 in 1911, as compared with \$344,000,000 in 1910 and \$376,000,000 in 1909. An increase of \$69,000,000 is shown in 1911 as compared with the preceding year, due to an increase in shipments of cotton of \$81,000,000; corn, \$2,000,000.

These increases were offset by a falling off in exports of wheat, \$12,000,000; fresh beef, \$3,000,000, and lard, \$1,000,000.

Shipments of farm products to Germany in 1911 were valued at \$207,000,000, an increase of \$29,000,000 over the preceding year and \$35,000,000 more than in 1909. The principal commodities showing increases as compared with 1910 were: Cotton, \$25,000,000; lard, \$5,000,000; corn, \$1,000,000. An increase of \$45,000,000 is shown in cotton as compared with 1909.

Exports of domestic forest products (Table 5) were consigned to 77 different countries in 1911 and were valued at \$103,000,000, as compared with \$85,000,000 for 1910 and \$72,000,000 for 1909. The greatest increase shown in the exports to any one country was in the case of Canada, which shows an increase of \$5,000,000 compared with 1910 and \$8,000,000 more than in 1909. This increase is mostly due to increased shipments of lumber to that country. Other important increases were \$3,000,000 for United Kingdom as compared with 1910 and \$5,000,000 compared with 1909. Germany shows an increase of \$2,700,000 as compared with 1910 and \$3,000,000 compared with 1909. As shown in this table, the six leading countries that held the same relative position for each of the three years under discussion received 67 per cent of forest products exported in 1911, 66 per cent in 1910, and 65 in 1909.

Shipments of farm and forest products from the United States to its noncontiguous possessions in 1911 were valued at \$28,300,000, as compared with \$27,900,000 in 1910 and \$25,300,000 in 1909. As a destination of farm products Porto Rico held first place for each of the three years under consideration, but as a destination of forest products Porto Rico rose from third place in 1909 to second place in 1910, and to first place in 1911. The farm products sent to the noncontiguous possessions consisted principally of prepared foods, such as cured meats, grain and grain products, and rice, rice meal, etc.

Exports of foreign farm products in 1911 were valued at \$15,000,000, as compared with a like amount for 1910 and \$10,000,000 in 1909. Foreign forest products exported in 1911 were worth \$8,000,000, compared with \$10,000,000 for 1910 and \$5,000,000 for 1909. The decrease shown in 1911 as compared with the preceding year is due to a falling off in shipments of india rubber of \$2,000,000, while the increase of \$3,000,000 as compared with 1909 is due to an increase in consignments of india rubber of that amount. (Tables 7 to 16.)

TABLE 1.—BALANCE OF TRADE and relative magnitude of IMPORTS and EXPORTS of FARM products, 1851-1911.¹

[All values are gold.]

Year ending June 30—	Exports.						
	Domestic.				Foreign.		
	Total.	Farm products.	Other than farm products.	Per cent of farm products of total.	Total.	Farm products.	Other than farm products.
1851.....	\$178,620,138	\$146,717,431	\$31,902,707	82.1	\$10,295,121	\$5,084,886	\$5,210,235
1852.....	154,931,147	125,183,749	29,747,398	80.8	12,053,084	5,897,138	6,155,946
1853.....	189,869,162	155,461,445	34,407,717	81.9	13,620,120	6,820,517	6,799,603
1854.....	215,328,300	172,320,260	43,008,040	80.0	21,715,464	11,528,791	10,186,673
1855.....	192,751,135	149,101,277	43,649,858	77.4	26,158,368	9,601,059	16,557,309
1856.....	266,438,051	222,409,001	44,029,050	83.5	14,781,372	6,451,870	8,329,502
1857.....	278,906,713	232,180,205	46,726,508	83.2	14,917,047	8,182,890	6,734,157
1858.....	251,351,033	205,853,748	45,497,285	81.9	20,660,241	13,739,733	6,920,508
1859.....	278,392,080	226,135,020	52,257,060	81.2	14,509,971	9,054,220	5,455,751
1860.....	316,242,423	260,280,413	55,962,010	82.3	17,333,634	10,577,008	6,756,626
1861.....	204,899,616	154,094,839	50,804,777	75.2	14,654,217	9,315,314	5,338,903
1862.....	179,644,024	140,463,928	39,180,096	78.2	11,026,477	5,569,056	5,457,421
1863.....	186,003,912	137,512,273	48,491,639	73.9	17,960,535	8,162,395	9,798,140
1864.....	143,504,027	102,794,359	40,709,668	71.6	15,333,961	9,037,218	6,296,743
1865.....	136,940,248	84,886,860	52,053,388	62.0	29,089,055	17,876,028	11,213,027
1866.....	337,518,102	278,670,278	58,847,824	82.6	11,341,420	5,793,649	5,547,771
1867.....	279,786,809	214,258,245	65,528,564	76.6	14,719,332	9,244,181	5,475,151
1868.....	269,389,900	206,979,580	62,410,320	76.8	12,562,999	6,709,785	5,853,214
1869.....	275,166,697	205,330,174	69,836,523	74.6	10,951,000	7,067,011	3,883,989
1870.....	376,616,473	296,962,357	79,654,116	78.9	16,155,295	10,667,193	5,488,102
1871.....	428,398,908	330,034,934	98,363,974	77.0	14,421,270	9,002,337	5,418,933
1872.....	428,487,131	332,936,080	95,551,051	77.7	15,690,455	9,205,158	6,485,297
1873.....	505,033,439	396,240,107	108,793,332	78.5	17,446,483	9,574,000	7,872,483
1874.....	569,433,421	453,862,070	115,571,351	79.7	16,849,619	9,629,988	7,219,631
1875.....	499,284,100	389,409,703	109,874,397	78.0	14,158,611	7,406,702	6,751,909
1876.....	525,582,247	410,884,027	114,698,220	78.2	14,802,424	8,450,386	6,352,038
1877.....	589,670,224	435,354,451	154,315,773	73.8	12,804,996	7,296,110	5,508,886
1878.....	680,709,268	531,637,041	149,072,227	78.1	14,156,498	9,419,767	4,736,731
1879.....	698,340,790	557,321,801	141,018,989	79.8	12,098,651	8,079,701	4,018,950
1880.....	823,946,353	694,315,497	129,630,856	84.3	11,692,305	7,173,664	4,518,641
1881.....	883,925,947	738,123,799	145,802,148	83.5	18,451,399	11,189,658	7,261,741
1882.....	733,239,732	557,620,540	175,619,192	76.0	17,302,525	9,857,878	7,444,647
1883.....	804,223,632	626,426,608	177,797,024	77.9	19,615,770	11,282,995	8,332,875
1884.....	724,964,852	547,952,579	177,012,273	75.6	15,548,757	8,749,894	6,798,863
1885.....	726,682,946	554,051,145	172,631,801	76.2	15,506,809	9,077,454	6,429,355
1886.....	665,964,529	501,313,738	164,650,791	75.3	13,560,301	7,734,192	5,826,109
1887.....	703,022,923	536,938,387	166,084,536	76.4	13,160,288	7,965,572	5,194,716
1888.....	683,862,104	505,402,327	178,459,777	73.9	12,092,403	7,031,986	5,060,417
1889.....	730,282,609	536,828,565	193,454,044	73.5	12,118,766	6,895,482	5,223,284
1890.....	845,293,828	634,855,869	210,437,959	75.1	12,534,856	6,908,820	5,626,036
1891.....	872,270,283	652,407,931	219,862,352	74.8	12,210,527	6,109,781	6,100,746
1892.....	1,015,732,011	803,122,045	212,609,966	79.1	14,546,137	6,638,755	7,907,382
1893.....	831,030,785	621,201,671	209,829,114	74.8	16,634,409	7,155,979	9,478,430
1894.....	869,204,937	636,633,747	232,571,190	73.2	22,935,635	9,586,876	13,348,759
1895.....	793,392,599	558,385,861	235,006,738	70.4	14,145,566	7,934,115	6,211,451
1896.....	863,200,487	574,398,264	288,802,223	66.5	19,406,451	10,916,730	8,489,721
1897.....	1,032,007,603	689,755,193	342,252,410	66.8	18,985,953	9,707,782	9,278,171
1898.....	1,210,291,913	850,018,946	351,272,967	71.0	21,190,417	10,409,348	10,781,069
1899.....	1,203,931,222	792,811,733	411,119,489	65.9	23,092,080	12,134,268	10,957,812
1900.....	1,370,763,571	844,616,530	526,147,041	61.6	23,719,511	11,263,253	12,456,258

¹ The values of exports of domestic merchandise for the fiscal years 1862-1879, inclusive, were originally given in gold for all trade going through the Pacific ports and in currency for exports from all other ports. In the above table all values are expressed in gold, with the exception of the following irregularity in 1866: For this year no returns of exports by articles and ports are available, and the gold value of farm products was computed by reducing the total mixed value of this class of articles as if it were all in currency. The result thus computed was subtracted from the gold value of all domestic exports to obtain the figure for exports other than farm products.

The values in gold of \$1 in currency, as used in this computation, were: For 1862, \$0.985; 1863, \$0.729; 1864, \$0.640; 1865, \$0.495; 1866, \$0.712; 1867, \$0.709; 1868, \$0.715; 1869, \$0.727; 1870, \$0.811; 1871, \$0.887; 1872, \$0.894; 1873, \$0.873; 1874, \$0.893; 1875, \$0.888; 1876, \$0.878; 1877, \$0.927; 1878, \$0.976; 1879, \$0.998.

Values of imports and of foreign exports are given in gold, as originally reported.

TABLE 1.—BALANCE OF TRADE and relative magnitude of IMPORTS and EXPORTS of FARM products, 1851-1911—Continued.

Year ending June 30—	Exports.						
	Domestic.				Foreign.		
	Total.	Farm products.	Other than farm products.	Per cent of farm products of total.	Total.	Farm products.	Other than farm products.
1901.....	\$1,460,462,806	\$951,628,331	\$508,834,475	65.2	\$27,302,185	\$11,293,045	\$16,009,140
1902.....	1,355,481,861	857,113,533	498,368,328	63.2	26,237,540	10,308,306	15,929,234
1903.....	1,392,231,302	878,480,557	513,750,745	63.1	27,910,377	13,505,343	14,405,034
1904.....	1,435,179,017	859,160,264	576,018,753	59.9	25,648,254	12,625,026	13,023,228
1905.....	1,491,744,641	826,904,777	664,839,864	55.4	26,817,025	12,316,525	14,500,500
1906.....	1,717,953,382	976,047,104	741,906,278	56.8	25,911,118	10,856,259	15,054,859
1907.....	1,853,718,034	1,054,405,416	799,312,618	56.9	27,133,044	11,613,519	15,519,525
1908.....	1,834,786,357	1,017,396,404	817,389,953	55.5	25,986,989	10,298,514	15,688,475
1909.....	1,638,355,593	903,238,122	735,117,471	55.1	24,655,511	9,584,934	15,070,577
1910.....	1,710,083,998	871,158,425	838,925,573	50.9	34,900,722	14,469,627	20,431,095
1911.....	2,013,549,025	1,030,794,402	982,754,623	51.2	35,771,174	14,664,548	21,106,626
Average:							
1851-1855	186,299,976	149,756,832	36,543,144	80.4	16,768,431	7,786,478	8,981,953
1856-1860	278,266,060	229,371,677	48,894,383	82.4	16,440,453	9,601,144	6,839,309
1861-1865	170,198,365	123,950,452	46,247,913	72.8	17,612,849	9,992,002	7,620,847
1866-1870	307,695,596	240,440,127	67,255,469	78.1	13,146,009	7,896,364	5,249,645
1871-1875	486,127,400	380,496,579	105,630,821	78.3	15,713,288	8,963,637	6,749,651
1876-1880	663,649,776	525,902,563	137,747,213	79.2	13,110,975	8,083,926	5,027,049
1881-1885	774,607,422	604,834,934	169,772,488	78.1	17,285,052	10,031,556	7,253,496
1886-1890	725,685,199	543,067,777	182,617,422	74.8	12,693,323	7,307,210	5,386,113
1891-1895	1,638,355,593	654,350,251	221,975,872	74.7	16,094,455	7,485,101	8,609,354
1896-1900	1,136,038,959	752,120,133	383,918,826	66.2	21,278,882	10,886,276	10,392,606
1901-1905	1,427,019,925	874,657,492	552,362,433	61.3	26,783,076	12,009,649	14,773,427
1906-1910	1,750,979,473	964,449,094	786,530,379	55.1	27,717,477	11,364,571	16,352,906
Imports.							Balance of trade (+) for United States, (-) against United States.
Year ending June 30—	Total.	Farm products. ¹	Other than farm products.	Per cent of farm products of total.	Total.	Farm products.	Other than farm products.
1851.....	\$210,771,429	\$60,513,449	\$150,257,980	28.7	-\$21,856,170	+\$91,288,898	-\$113,145,038
1852.....	207,440,398	61,747,933	145,692,465	29.8	- 40,456,167	+ 69,332,954	- 109,789,121
1853.....	263,777,265	71,499,465	192,277,800	27.1	- 60,287,983	+ 90,782,497	- 151,070,480
1854.....	297,808,794	71,720,047	226,088,747	24.1	- 60,760,030	+112,129,004	- 172,889,034
1855.....	257,808,708	81,726,640	176,082,068	31.7	- 38,899,205	+ 76,975,696	- 115,874,901
1856.....	310,432,310	102,541,703	207,890,607	33.0	- 29,212,887	+126,319,168	- 155,532,055
1857.....	348,428,342	133,226,318	215,202,024	38.2	- 54,604,582	+107,136,777	- 161,741,359
1858.....	263,338,654	102,482,331	160,856,323	38.9	+ 8,672,620	+117,111,150	- 108,438,530
1859.....	331,333,341	126,236,317	205,097,024	38.1	- 38,431,290	+108,952,923	- 147,384,213
1860.....	353,616,119	129,816,165	223,799,954	36.7	- 20,040,062	+141,041,266	- 161,081,318
1861.....	289,310,542	113,329,585	175,980,957	39.2	- 60,756,709	+ 50,080,568	- 119,837,277
1862.....	189,356,677	91,263,088	98,093,589	48.2	+ 1,313,824	+ 54,769,896	- 53,456,072
1863.....	243,335,815	102,886,713	140,449,102	42.3	- 39,371,368	+ 42,787,955	- 82,159,323
1864.....	316,447,283	138,124,440	178,322,843	43.6	-157,609,295	- 26,292,863	- 131,316,432
1865.....	238,745,580	114,031,753	124,713,827	47.8	- 72,716,277	- 11,268,865	- 61,447,412

¹ The classification employed from 1890 to 1901 differs from the present classification by including prepared opium and (in 1896-1901) gelatine, but not cochineal, licorice root, nor (in 1891-1893) beer extract. The value of the products included in this table for 1890-1901, but not subsequently, was as follows: Prepared opium, 1890, \$269,586; 1891, \$567,035; 1892, \$547,528; 1893, \$446,422; 1894, \$310,771; 1895, \$920,006; 1896, \$735,134; 1897, \$1,132,861; 1898, \$652,341; 1899, \$828,203; 1900, \$1,065,965; 1901, \$972,582; gelatine, 1896, \$15,386; 1897, \$5,748; 1898, \$25,907; 1899, \$21,961; 1900, \$30,361; 1901, \$23,230. The value of the products now included, but not in 1890-1901, was as follows: Cochineal, 1890, \$42,435; 1891, \$19,779; 1892, \$55,883; 1893, \$52,572; 1894, \$28,124; 1895, \$38,568; 1896, \$50,988; 1897, \$41,943; 1898, \$45,762; 1899, \$23,207; 1900, \$31,211; 1901, \$20,414; licorice root, 1890, \$794,503; 1891, \$896,597; 1892, \$1,601,028; 1893, \$1,688,716; 1894, \$1,209,728; 1895, \$1,404,563; 1896, \$1,401,748; 1897, \$1,022,650; 1898, \$1,171,621; 1899, \$1,566,830; 1900, \$1,667,256; 1901, \$1,737,097; beer extract, 1891, \$6,470; 1892, \$5,411; 1893, \$2,291.

TABLE 1.—BALANCE OF TRADE and relative magnitude of IMPORTS and EXPORTS of FARM products, 1851-1911—Continued.

Year ending June 30—	Imports.				Balance of trade (+) for United States, (-) against United States.		
	Total.	Farm products.	Other than farm products.	Per cent of farm products of total.	Total.	Farm products.	Other than farm products.
1866.....	\$434,812,066	\$164,801,739	\$270,010,327	37.9	-\$85,952,544	+\$119,662,188	-\$205,614,732
1867.....	395,761,096	141,622,826	254,138,270	35.8	-101,254,955	+ 81,879,600	- 183,134,555
1868.....	357,436,440	157,638,217	199,798,223	44.1	- 75,483,541	+ 56,051,148	- 131,534,689
1869.....	417,506,379	185,348,661	232,157,718	44.4	-131,388,682	+ 27,048,524	- 158,437,206
1870.....	435,958,408	191,559,361	244,399,047	43.9	- 43,186,640	+ 116,070,189	- 159,256,829
1871.....	520,223,684	222,700,936	297,522,748	42.8	- 77,403,506	+ 116,336,335	- 193,739,841
1872.....	626,595,077	274,146,298	352,448,779	43.8	-182,417,491	+ 67,994,940	- 250,412,431
1873.....	642,136,210	277,604,621	364,531,589	43.2	-119,656,288	+ 128,209,486	- 247,865,774
1874.....	567,406,342	267,414,990	299,991,352	47.1	+ 18,876,698	+ 196,077,068	- 177,200,370
1875.....	533,005,436	261,618,732	271,386,704	49.1	+ 19,562,725	+ 135,197,673	- 154,760,398
1876.....	460,741,190	234,993,224	225,747,966	51.0	+ 79,643,481	+ 184,341,189	- 104,697,708
1877.....	451,323,126	249,281,945	202,041,181	55.2	+151,152,094	+ 193,368,616	- 42,216,522
1878.....	437,051,532	236,112,137	200,939,395	54.0	+257,814,234	+ 304,944,671	- 47,130,437
1879.....	445,777,775	233,623,846	212,153,929	52.4	+264,661,666	+ 331,777,656	- 67,115,990
1880.....	667,954,746	314,617,480	353,337,266	47.1	+167,683,912	+ 386,871,681	- 219,187,769
1881.....	642,664,628	298,283,101	344,381,527	46.4	+259,712,718	+ 451,030,356	- 191,317,638
1882.....	724,639,574	330,375,047	394,264,527	45.6	+ 25,902,683	+ 237,103,371	- 211,200,688
1883.....	723,180,914	325,757,806	397,423,108	45.0	+100,658,488	+ 311,951,697	- 211,293,209
1884.....	667,697,693	319,053,331	348,644,362	47.8	+ 72,815,916	+ 237,649,142	- 164,833,226
1885.....	577,527,329	277,340,305	300,187,024	48.0	+164,662,426	+ 285,788,294	- 121,125,868
1886.....	635,436,136	306,011,332	329,424,804	48.2	+ 44,083,694	+ 203,036,598	- 158,947,904
1887.....	692,319,768	325,652,754	366,667,014	47.0	+ 23,863,443	+ 219,251,205	- 195,387,057
1888.....	723,957,114	339,199,344	384,757,770	46.9	- 28,002,607	+ 173,234,969	- 201,237,576
1889.....	745,131,652	365,586,061	379,545,591	49.1	- 2,730,277	+ 178,137,986	- 180,868,263
1890.....	789,310,409	384,100,435	405,209,974	48.7	+ 68,518,275	+ 257,664,254	- 189,145,979
1891.....	844,916,196	420,211,949	424,704,247	49.7	+ 39,564,614	+ 238,305,763	- 198,741,149
1892.....	827,402,462	436,697,057	390,705,405	52.8	+202,875,686	+ 373,063,743	- 170,185,057
1893.....	866,400,922	425,657,448	440,743,474	49.1	- 18,735,728	+ 202,700,202	- 221,435,930
1894.....	654,994,622	365,160,319	289,834,303	55.8	+237,145,950	+ 281,060,304	- 43,914,354
1895.....	731,969,965	373,115,985	358,853,980	51.0	+ 75,568,200	+ 193,203,991	- 117,635,791
1896.....	779,724,674	391,029,407	388,695,267	50.1	+102,882,264	+ 194,285,587	- 91,403,323
1897.....	764,730,412	400,871,468	363,858,944	52.4	+286,263,144	+ 298,591,507	- 12,238,363
1898.....	616,049,654	314,291,796	301,757,858	51.0	+615,623,676	+ 555,136,498	- 60,296,178
1899.....	697,148,489	355,514,881	341,633,608	51.0	+529,874,813	+ 449,431,120	- 80,443,693
1900.....	849,941,184	420,139,288	429,801,896	49.4	+443,541,898	+ 436,740,495	+ 106,801,403
1901.....	823,172,165	391,931,051	431,241,114	47.6	+664,592,826	+ 570,990,325	+ 93,602,501
1902.....	903,320,948	413,744,557	489,576,391	45.8	+478,398,453	+ 453,677,282	+ 24,721,171
1903.....	1,025,719,237	456,199,325	569,519,912	44.5	+394,422,442	+ 435,786,575	+ 41,364,133
1904.....	991,087,371	461,434,351	529,652,520	46.6	+469,739,900	+ 410,350,439	+ 59,389,461
1905.....	1,117,513,071	553,651,214	563,661,857	49.6	+401,848,595	+ 285,370,088	+ 115,678,507
1906.....	1,226,562,446	554,175,242	672,387,204	45.2	+517,302,054	+ 432,728,121	+ 84,573,933
1907.....	1,434,421,425	626,836,808	807,584,617	43.7	+446,429,653	+ 439,182,127	+ 7,247,526
1908.....	1,194,341,792	539,690,121	654,651,671	45.2	+666,431,554	+ 488,004,797	+ 178,426,757
1909.....	1,311,920,224	638,612,692	673,307,532	48.7	+351,090,880	+ 274,210,152	+ 76,880,728
1910.....	1,556,947,430	687,509,115	869,438,315	44.2	+188,037,290	+ 198,118,937	+ 10,081,647
1911.....	1,527,226,105	680,204,932	847,021,173	44.5	+522,094,094	+ 365,254,018	+ 156,840,076
Average:							
1851-1855.....	247,520,319	69,441,507	178,078,812	28.1	- 44,451,912	+ 88,101,803	- 132,553,715
1856-1860.....	321,429,753	118,860,567	202,569,186	37.0	- 26,725,040	+ 120,712,572	- 146,935,494
1861-1865.....	255,439,179	111,927,116	143,512,063	43.8	- 67,627,965	+ 22,015,338	- 89,643,303
1866-1870.....	408,294,878	168,194,161	240,100,717	41.2	- 87,453,293	+ 80,142,330	- 167,595,603
1871-1875.....	577,873,350	260,697,115	317,176,235	45.1	- 76,032,662	+ 128,763,101	- 204,796,763
1876-1880.....	492,509,674	253,725,726	238,843,948	51.5	+184,191,077	+ 280,260,763	- 96,069,686
1881-1885.....	667,142,028	310,161,918	356,980,110	46.5	+124,750,446	+ 304,704,572	- 179,954,126
1886-1890.....	717,231,016	344,109,958	373,121,031	48.0	+ 107,147,506	+ 206,265,002	- 155,117,495
1891-1895.....	755,136,833	404,168,552	350,968,281	51.5	+217,283,745	+ 257,666,800	- 180,383,051
1896-1900.....	741,518,883	376,369,368	365,149,515	50.8	+415,798,958	+ 386,637,041	+ 29,161,917
1901-1905.....	972,162,558	455,432,200	516,730,358	46.8	+481,640,443	+ 431,234,941	+ 50,405,502
1906-1910.....	1,344,838,663	609,364,796	735,473,867	45.3	+543,851,287	+ 366,448,826	+ 67,409,461

TABLE 2.—**EXPORTS** of domestic and **FOREIGN FOREST PRODUCTS** from the United States, 1851-1911.¹

[All values are gold.]

Year ending June 30—	Domestic.	Foreign.	Year ending June 30—	Domestic.	Foreign.
1851.....	\$4,188,635	\$566,554	1891.....	\$28,715,713	\$1,220,002
1852.....	4,400,741	411,166	1892.....	27,957,928	1,542,639
1853.....	4,704,394	341,566	1893.....	28,127,281	1,178,837
1854.....	8,636,443	470,483	1894.....	28,001,461	1,973,803
1855.....	8,879,743	1,320,670	1895.....	28,576,680	1,277,705
1856.....	7,474,074	926,299	1896.....	33,718,790	2,563,550
1857.....	10,411,894	1,164,280	1897.....	40,490,428	3,242,262
1858.....	10,579,417	1,295,788	1898.....	38,439,418	2,582,082
1859.....	11,396,163	747,621	1899.....	42,828,732	3,011,832
1860.....	10,299,959	846,929	1900.....	52,676,575	3,981,002
1861.....	7,286,605	756,112	1901.....	55,369,161	3,599,192
1862.....	6,468,911	808,273	1902.....	48,928,764	3,609,071
1863.....	6,544,788	872,515	1903.....	58,734,016	2,865,325
1864.....	6,608,236	616,086	1904.....	70,085,789	4,177,352
1865.....	7,629,020	1,109,049	1905.....	63,199,348	3,790,097
1866.....	9,579,561	584,459	1906.....	76,975,431	4,809,261
1867.....	11,175,119	599,918	1907.....	92,948,705	5,500,331
1868.....	11,956,584	674,786	1908.....	90,362,073	4,570,397
1869.....	11,885,488	361,480	1909.....	72,442,454	4,982,810
1870.....	11,984,445	1,181,708	1910.....	85,030,230	9,801,881
1871.....	11,874,850	635,847	1911.....	103,038,892	7,586,854
1872.....	16,494,184	1,004,495	Average:		
1873.....	19,578,615	774,909	1851-1855.....	6,161,991	622,088
1874.....	21,143,701	1,116,763	1856-1860.....	10,032,301	996,179
1875.....	16,680,377	1,019,887	1861-1865.....	6,907,512	832,407
1876.....	15,636,980	883,254	1866-1870.....	11,316,239	680,470
1877.....	18,312,446	532,547	1871-1875.....	17,154,345	910,380
1878.....	17,180,147	705,941	1876-1880.....	16,841,890	658,715
1879.....	16,023,005	557,434	1881-1885.....	24,357,469	1,277,259
1880.....	17,056,870	614,399	1886-1890.....	24,529,928	1,409,176
1881.....	19,324,096	352,249	1891-1895.....	28,275,813	1,438,597
1882.....	25,580,254	1,321,446	1896-1900.....	41,630,789	3,076,146
1883.....	28,645,199	2,137,165	1901-1905.....	59,263,416	3,608,207
1884.....	26,222,959	1,450,032	1906-1910.....	83,551,779	5,932,936
1885.....	22,014,839	1,125,404			
1886.....	21,061,708	1,052,083			
1887.....	21,126,152	1,568,996			
1888.....	23,991,092	1,319,270			
1889.....	26,997,602	1,767,853			
1890.....	29,473,084	1,337,677			

¹ See Note ¹, Table 1, p. 9.TABLE 3.—*Value of* **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by grand divisions to which consigned.

Grand division.	Year ending June 30—		
	1909	1910	1911
FARM PRODUCTS.			
Europe.....	\$784,853,881	\$740,823,198	\$877,298,058
North America.....	78,082,169	94,502,010	104,690,849
Asia.....	19,532,282	14,514,757	24,240,025
South America.....	9,295,957	10,550,719	12,470,516
Oceania.....	4,827,655	6,082,245	7,092,622
Africa.....	6,646,178	4,685,496	5,002,332
Total.....	903,238,122	871,158,425	1,030,794,402
FOREST PRODUCTS.			
Europe.....	43,413,042	48,326,085	56,440,347
North America.....	14,033,153	19,343,957	24,945,542
South America.....	10,064,571	11,391,758	12,842,064
Oceania.....	3,036,265	3,041,290	4,845,560
Asia.....	871,388	1,534,667	2,108,884
Africa.....	1,024,035	1,392,473	1,856,495
Total.....	72,442,454	85,030,230	103,038,892

TABLE 4.—Value of **EXPORTS** of domestic **FARM** products, 1909-1911, by countries to which consigned.

Country.	Year ending June 30—		
	1909	1910	1911
United Kingdom:			
England.....	\$348,729,177	\$318,416,408	\$386,389,817
Scotland.....	17,952,337	16,227,687	16,247,358
Ireland.....	8,993,354	9,150,764	9,935,663
Germany.....	171,592,232	177,742,798	206,926,033
France.....	64,489,091	75,871,137	89,528,191
Canada.....	30,375,721	38,494,249	47,419,819
Italy.....	43,603,736	37,231,075	41,717,962
Netherlands.....	44,659,544	35,828,397	40,359,304
Belgium.....	30,461,220	24,265,061	26,574,760
Cuba.....	17,740,614	21,902,778	22,549,165
Spain.....	15,843,675	15,138,068	20,328,778
Japan.....	12,320,007	8,285,704	15,808,587
Mexico.....	10,477,649	14,111,295	12,770,430
Denmark.....	13,429,240	9,581,879	9,223,395
Austria-Hungary.....	6,088,652	5,687,994	9,142,939
Russia, European.....	6,513,450	6,303,826	6,856,662
British West Indies:			
Barbados.....			818,804
Jamaica.....			1,847,504
Trinidad and Tobago.....	6,492,477	5,772,253	1,605,834
Other British.....			1,394,477
Hongkong.....	5,041,599	4,371,718	5,340,327
Norway.....	3,793,601	3,809,439	5,194,661
Panama.....	3,725,319	4,095,650	4,738,070
Brazil.....	2,490,377	3,011,901	3,805,581
Sweden.....	2,499,164	2,467,555	3,554,283
Australia, Commonwealth of.....	1,892,047	2,315,171	3,262,068
Philippine Islands.....	2,246,423	3,097,416	2,743,271
Newfoundland and Labrador.....	1,914,178	2,003,641	2,373,474
Haiti.....	1,563,781	1,966,577	2,213,294
China.....	807,122	957,340	2,094,043
British West Africa.....	1,756,013	1,914,225	1,710,850
Finland.....			1,561,912
Turkey, European.....	1,267,629	761,200	1,448,778
British Guiana.....	1,238,866	1,262,032	1,302,025
Portugal.....	2,599,106	1,745,859	1,293,581
Peru.....	807,269	1,302,305	1,283,015
Argentina.....	1,000,780	857,939	1,261,108
British South Africa.....	1,312,161	864,018	1,203,121
Venezuela.....	920,606	968,044	1,070,243
Costa Rica.....	733,190	910,505	1,009,487
Santo Domingo.....	703,858	884,923	945,006
French West Indies.....	854,221	743,049	833,201
Chile.....	450,871	594,430	869,972
Colombia.....	630,782	645,337	841,435
Ecuador.....	710,294	819,897	806,457
Guatemala.....	634,572	565,248	780,271
British Honduras.....	504,667	566,215	683,978
New Zealand.....	506,912	462,209	670,208
Portuguese Africa.....	1,674,430	705,059	641,902
Bermuda.....	569,719	542,637	629,956
Nicaragua.....	397,612	591,440	601,902
Dutch Guiana.....	452,604	496,257	514,469
French Africa.....	845,670	695,009	470,083
Turkey, Asiatic.....	192,606	240,369	428,245
Honduras.....	404,228	388,965	423,491
Egypt.....	687,310	174,038	423,195
Uruguay.....	251,713	283,899	346,401
Salvador.....	323,549	345,902	329,822
Dutch West Indies.....	341,439	290,824	328,271
Danish West Indies.....	305,948	308,856	325,391
Roumania.....	334,878	137,675	319,537
Canary Islands.....	151,356	83,850	298,154
French Guiana.....	313,314	245,909	251,761
Gibraltar.....	422,830	160,880	248,257
British Oceania, n. e. s.....	27,755	12,528	226,877
Greece.....	942,716	86,656	213,028
British India.....	243,533	154,257	204,142
Malta and Cyprus.....	575,407	133,183	181,334
French Oceania.....	137,484	181,681	174,449
German Africa.....	128,253	121,740	143,703
Bolivia.....	27,806	62,005	117,617
Russia, Asiatic.....	473,492	226,601	114,023
Dutch East Indies.....	56,763	63,723	96,911
Straits Settlements.....	330,384	156,554	81,260
Liberia.....	34,480	55,820	70,802

TABLE 4.—*Value of EXPORTS of domestic FARM products, 1909-1911, by countries to which consigned—Continued.*

Country.	Year ending June 30—		
	1909	1910	1911
Azores and Madeira Islands.....	\$51,017	\$61,747	\$26,066
French East Indies.....	1,534	13,424	24,426
Korea.....	27,873	27,709	22,475
St. Pierre and Miquelon.....	19,427	17,003	19,202
British East Africa.....	32,687	22,738	17,464
Spanish Africa.....	21,435	10,528	17,168
Switzerland.....	11,327	11,553	16,517
German Oceania.....	17,034	13,240	15,749
British East Indies, n. e. s.....	3,395	6,374	10,359
French China.....			7,875
Siam.....	12,272	3,599	5,731
Bulgaria.....	498	2,357	3,736
Belgian Kongo.....	538	11,568	3,629
Servia.....			3,175
Iceland and Faroe Islands.....			2,331
Italian Africa.....	1,845	2,588	2,111
Japanese China.....	17,629	1,076	960
Paraguay.....	675	764	432
German China.....	704		334
Aden.....	3,369	3,318	327
Madagascar.....			150
Morocco.....		24,315	
British China.....		2,857	
Asia, n. e. s.....		104	
Total.....	903,238,122	871,158,425	1,030,794,402

TABLE 5.—*Value of EXPORTS of domestic FOREST products, 1909-1911, by countries to which consigned.*

Country.	Year ending June 30—		
	1909	1910	1911
United Kingdom:			
England.....	\$14,906,455	\$16,474,694	\$19,689,369
Scotland.....	2,407,323	2,330,092	2,555,290
Ireland.....	675,640	812,149	866,281
Canada.....	6,492,535	9,215,576	14,587,775
Germany.....	7,436,232	8,022,949	10,745,954
Argentina.....	6,417,276	7,393,906	7,481,457
Netherlands.....	5,837,893	7,063,417	7,254,524
Belgium.....	3,086,955	4,534,897	5,537,275
Australia, Commonwealth of.....	2,428,165	2,475,528	4,065,602
Mexico.....	3,099,735	3,647,891	3,959,754
Italy.....	3,240,119	3,240,757	3,178,387
France.....	3,147,765	3,167,283	3,124,092
Cuba.....	1,712,764	2,913,881	2,959,012
Brazil.....	1,418,635	1,692,437	2,456,078
Spain.....	1,263,588	1,115,191	1,432,504
Panama.....	1,213,128	1,657,504	1,244,966
Chinese Empire.....	389,249	841,015	1,193,467
Uruguay.....	793,420	1,003,415	1,152,218
British South Africa.....	466,834	739,764	982,661
British West Indies:			
Barbados.....			134,827
Jamaica.....			424,484
Trinidad and Tobago.....			261,015
Other British.....	764,636	875,573	84,563
Peru.....	856,856	576,829	724,810
Chile.....	335,061	408,762	706,302
Russia, European.....	200,825	288,402	619,672
Austria-Hungary.....	367,379	417,426	560,661
Portugal.....	541,439	630,204	544,010
Portuguese Africa.....	242,895	249,225	467,839
Japan.....	242,263	346,408	417,265
French West Indies.....	221,187	239,411	338,454
Philippine Islands.....	239,839	322,988	299,059
New Zealand.....	200,513	119,358	237,056

TABLE 5.—Value of **EXPORTS** of domestic **FOREST** products, 1909-1911, by countries to which consigned—Continued.

Country.	Year ending June 30—		
	1909	1910	1911
French Africa.....	\$186,660	\$101,063	\$216,129
Haiti.....	71,068	121,150	204,867
Costa Rica.....	75,968	156,920	193,734
Norway.....	57,513	79,900	160,249
British India.....	102,391	175,320	139,177
Colombia.....	53,373	98,473	135,360
Santo Domingo.....	79,676	131,749	130,863
Straits Settlements.....	55,262	105,817	129,236
British Oceania, n. e. s.....	57,355	42,093	122,462
French Oceania.....	41,479	56,960	104,104
Hongkong.....	55,883	42,051	102,365
Venezuela.....	52,912	89,411	94,397
Denmark.....	136,134	79,096	92,920
Honduras.....	50,981	70,828	89,672
British Honduras.....	35,472	43,508	86,792
Dutch East Indies.....	1,540	1,968	80,277
Guatemala.....	50,875	59,748	76,424
Canary Islands.....	53,367	61,021	74,873
British Guiana.....	107,742	77,530	67,297
British West Africa.....	27,322	35,854	59,898
Newfoundland and Labrador.....	65,231	106,151	55,860
Azores and Madeira Islands.....	55,441	41,788	44,991
Morocco.....	8,344	35,056	35,751
British East Indies, n. e. s.....	22,264	7,237	28,375
Bermuda.....	23,514	39,412	26,520
Nicaragua.....	19,465	20,301	25,086
Danish West Indies.....	42,897	12,714	22,707
Sweden.....	46,529	12,369	22,686
Dutch West Indies.....	2,746	6,301	17,942
German Oceania.....	8,914	24,363	17,277
Egypt.....	37,472	156,983	15,200
Turkey, Asiatic.....	326	136	14,117
Salvador.....	9,124	22,930	13,905
Ecuador.....	18,525	8,226	13,370
Gibraltar.....	.....	14,230	6,907
St. Pierre and Miquelon.....	2,151	2,409	6,320
Bolivia.....	938	2,061	5,397
Greece.....	1,091	100	3,905
French Guiana.....	8,599	11,730	3,723
German Africa.....	.....	.....	2,762
Russia, Asiatic.....	287	955	2,341
Korea.....	616	138	1,649
Liberia.....	116	.....	1,374
Dutch Guiana.....	351	17,231	968
Paraguay.....	883	11,747	687
Switzerland.....	.....	60	670
Aden.....	388	157	423
Siam.....	.....	.....	192
Belgian Kongo.....	.....	.....	8
British East Africa.....	1,025	13,507	.....
Japanese China.....	.....	13,433	.....
Turkey, European.....	2,000	1,081	.....
Persia.....	.....	32	.....
Roumania.....	2,716	.....	.....
German China.....	919	.....	.....
Bulgaria.....	5	.....	.....
Total.....	72,442,454	85,030,230	103,038,892

TABLE 6.—*Value of principal groups of* **EXPORTS** *of domestic* **FARM** *and* **FOREST** *products, 1909-1911.*

Group of articles.	Year ending June 30—		
	1909	1910	1911
FARM PRODUCTS.			
<i>Animal matter.</i>			
Animals, live.....	\$22,645,438	\$17,447,735	\$19,048,653
Dairy products.....	3,500,405	2,250,421	3,283,816
Eggs.....	1,199,522	1,260,486	1,787,019
Packing-house products.....	169,991,850	135,959,373	157,302,666
Other animal matter.....	1,708,861	1,439,419	1,624,735
Total animal matter.....	199,046,076	158,357,434	183,046,889
<i>Vegetable matter.</i>			
Coffee.....	3,885,616	5,900,134	5,380,481
Cotton.....	417,390,665	450,447,243	585,318,869
Fruits.....	16,079,227	18,504,591	23,893,663
Glucose and grape sugar.....	2,346,089	3,415,220	3,395,383
Grain and grain products.....	160,076,479	133,320,418	124,262,836
Hay.....	1,147,753	1,070,907	1,032,591
Hops.....	1,271,629	2,062,140	2,130,972
Liquors, alcoholic.....	3,096,172	3,154,100	3,479,586
Oil cake and oil-cake meal.....	25,836,134	19,251,012	19,631,127
Oils, vegetable.....	23,098,050	16,479,301	19,805,232
Seeds.....	5,256,623	3,485,418	2,475,066
Starch.....	780,155	1,274,773	3,137,552
Sugar, molasses, and sirup.....	5,468,502	7,873,036	4,350,605
Tobacco.....	30,902,900	38,115,386	39,255,320
Vegetables.....	3,760,466	4,207,319	5,545,091
Other vegetable matter.....	3,795,586	4,239,993	4,653,139
Total vegetable matter.....	704,192,046	712,800,991	847,747,513
Total farm products.....	903,238,122	871,158,425	1,030,794,402
FOREST PRODUCTS.			
Lumber.....	43,557,989	50,363,035	59,526,677
Naval stores.....	15,101,147	18,681,962	25,022,720
Timber and logs.....	12,100,393	14,109,854	16,525,104
Other forest products.....	1,682,925	1,875,379	1,964,391
Total forest products.....	72,442,454	85,030,230	103,038,892
Total farm and forest products.....	975,680,576	956,188,655	1,133,833,294

TABLE 7.—**BALANCE OF TRADE** *and relative magnitude of value of* **FARM** *products in the trade of the United States with its* **NONCONTIGUOUS POSSESSIONS,** *1901-1911.*

SHIPMENTS FROM THE UNITED STATES.

Possession and year.	Domestic products.				Foreign products.		
	Total.	Farm products.	Other.	Per cent farm products of total.	Total.	Farm products.	Other.
Alaska: ¹							
1901.....	\$9,266,504	\$2,902,386	\$6,274,118	32.3	\$243,197	\$9,485	\$233,712
1904.....	9,869,721	3,340,899	6,528,822	33.8	295,389	33,830	261,559
1905.....	11,227,619	4,154,676	7,072,943	37.0	276,636	95,174	181,462
1906.....	14,375,275	5,453,374	8,921,901	37.9	494,552	158,643	335,909
1907.....	17,811,093	6,427,504	11,383,589	36.1	591,672	158,009	403,663
1908.....	15,957,576	5,509,983	10,447,593	34.5	620,327	238,509	381,818
1909.....	17,186,445	6,510,068	10,676,377	37.9	576,155	161,486	414,669
1910.....	17,972,647	6,500,650	11,471,997	36.2	697,692	184,966	512,726
1911.....	15,736,510	5,080,481	10,656,029	32.3	469,220	175,543	293,677

¹ Not stated for 1901 and 1902.

TABLE 7.—BALANCE OF TRADE and relative magnitude of value of **FARM** products in the trade of the United States with its **NONCONTIGUOUS POSSESSIONS, 1901-1911**—Continued.

SHIPMENTS FROM THE UNITED STATES—Continued.

Possession and year.	Domestic products.				Foreign products.		
	Total.	Farm products.	Other.	Per cent. farm products of total.	Total.	Farm products.	Other.
Guam:							
1901 ¹	\$34,223	\$12,713	\$21,510	37.1	\$468	\$468	.....
1902 ¹	18,491	6,657	11,834	36.0	255	255	.....
1903.....	44,939	14,200	30,739	31.6	.....	.....	.....
1904.....	95,885	2,745	93,140	2.9	5,347	(2)	\$5,347
1905 ⁴	14,116	3,749	10,367	26.6	.....	.....	.....
1906 ⁴	12,392	4,330	8,062	34.9	.....	.....	.....
1907 ⁴	17,552	9,462	8,090	53.9	.....	.....	.....
1908 ⁴	25,324	8,896	16,428	35.1	.....	.....	.....
1909 ⁴	15,569	6,581	8,988	42.3	.....	.....	.....
1910 ⁴	28,960	10,217	18,743	35.3	.....	.....	.....
1911 ⁴	45,611	8,126	37,485	.....	.....	.....	.....
Hawaii: ⁶							
1903.....	10,787,666	3,385,063	7,402,603	31.4	155,397	69,472	85,925
1904.....	11,602,080	3,559,057	8,043,023	30.7	81,313	33,851	47,462
1905.....	11,643,519	3,390,467	8,253,052	29.1	109,661	52,959	56,702
1906.....	11,771,155	3,491,821	8,279,334	29.7	265,520	74,121	191,399
1907.....	14,124,376	3,602,595	10,521,781	25.5	311,349	62,533	248,816
1908.....	14,638,717	3,843,623	10,795,094	26.3	399,438	67,898	331,540
1909.....	17,193,219	4,487,689	12,705,530	26.1	587,559	89,730	497,829
1910.....	20,289,017	4,401,109	15,887,908	21.7	271,084	73,555	197,529
1911.....	21,677,213	4,808,673	16,868,540	22.2	247,964	88,529	159,435
Midway Islands: ⁶							
1904.....	63,627	95	63,532	0.1	8	(2)	³ 8
1905.....	16,821	7,079	9,742	42.1	2	(2)	³ 2
1908.....	1,571	772	799	49.1	.....	.....	.....
Philippine Islands: ¹							
1901.....	4,014,180	2,500,299	1,513,881	62.3	12,884	12,436	448
1902.....	5,251,867	1,752,198	3,499,669	33.4	6,603	2,480	4,123
1903.....	4,028,677	1,174,347	2,854,330	29.1	10,232	1,664	8,568
1904.....	4,831,860	1,376,583	3,455,277	28.5	1,040	.....	1,040
1905.....	6,198,384	1,157,850	5,040,534	18.7	2,236	1,126	1,110
1906.....	5,458,867	1,447,774	4,011,093	26.5	577	.....	577
1907.....	8,657,956	1,329,616	7,328,340	15.4	3,468	.....	3,468
1908.....	11,455,707	1,581,376	9,874,331	13.8	6,025	2,182	3,843
1909.....	11,182,175	2,246,423	8,935,752	20.1	7,266	4,319	2,947
1910.....	16,768,909	3,097,315	13,671,594	18.5	63,736	42,459	21,277
1911.....	19,677,802	2,743,271	16,934,531	13.9	45,311	25,660	19,651
Porto Rico:							
1901.....	6,861,917	3,490,209	3,371,708	50.9	103,491	42,055	61,436
1902.....	10,719,444	4,818,700	5,900,744	45.0	163,209	33,004	130,205
1903.....	11,976,134	5,665,435	6,310,699	47.3	269,711	76,941	192,770
1904.....	10,727,015	5,188,925	5,538,090	48.4	483,045	143,195	339,850
1905.....	13,387,457	5,937,569	7,449,888	44.4	586,613	134,073	452,540
1906.....	18,648,991	7,879,567	10,769,424	42.3	575,890	155,685	420,205
1907.....	25,320,465	10,222,944	15,097,521	40.4	365,820	123,167	242,653
1908.....	22,360,366	9,218,546	13,141,820	41.2	317,010	99,374	217,636
1909.....	23,272,170	9,807,776	13,464,394	42.1	346,375	90,281	256,094
1910.....	26,478,106	10,981,064	15,497,042	41.5	619,548	184,347	435,201
1911.....	33,774,263	12,377,652	21,396,711	36.6	897,695	311,415	586,280
Tutuila: ⁷							
1902.....	13,453	2,203	11,250	16.4	.....	.....	.....
1903.....	54,675	13,553	41,122	24.8	.....	.....	.....
1904.....	39,583	13,197	26,386	33.3	615	(2)	³ 615
1905.....	69,670	18,221	51,449	26.2	145	(2)	³ 145
1906.....	78,733	17,889	60,844	22.7	27	(2)	³ 27
1907.....	64,407	9,671	54,736	15.0	108	(2)	³ 108
1908.....	14,971	6,018	8,953	40.2	.....	.....	.....
1909.....	40,583	15,330	25,253	37.8	.....	.....	.....
1910.....	90,175	24,929	65,246	27.6	.....	.....	.....
1911.....	82,561	19,788	62,773	24.0	.....	.....	.....

¹ Exports from the United States.² Not separately stated.³ Including farm products, if any.⁴ Receipts into Guam from the United States, including foreign merchandise, if any. Reported by the Navy Department.⁵ Not stated for 1901 and 1902.⁶ Not stated prior to 1904, and no shipments reported for 1906, 1907, 1909, 1910, or 1911.⁷ Not stated prior to 1902.

TABLE 7 —BALANCE OF TRADE and relative magnitude of value of FARM products in the trade of the United States with its NONCONTIGUOUS POSSESSIONS, 1901-1911—Continued.

SHIPMENTS FROM THE UNITED STATES—Continued.

Possession and year.	Domestic products.				Foreign products.		
	Total.	Farm products.	Other.	Per cent farm products of total.	Total.	Farm products.	Other.
All noncontiguous possessions:							
1901.....	\$10,910,320	\$6,003,221	\$4,907,099	55.0	\$116,843	\$54,959	\$61,884
1902.....	16,003,255	6,579,758	9,423,497	41.1	170,067	35,739	134,328
1903.....	36,158,595	13,244,984	22,913,611	36.6	678,537	157,562	520,975
1904.....	37,229,771	13,481,501	23,748,270	36.2	866,757	1210,876	1655,881
1905.....	42,557,586	14,669,611	27,887,975	34.5	975,293	1283,332	1691,961
1906.....	50,345,413	18,294,735	32,050,678	36.3	1,336,566	388,440	948,117
1907.....	65,995,849	21,601,792	44,394,057	32.7	1,272,417	1373,709	1898,708
1908.....	64,454,232	20,169,214	44,285,018	31.3	1,342,800	407,963	934,837
1909.....	68,890,161	23,073,867	45,816,294	33.5	1,517,355	345,816	1,171,539
1910.....	81,627,814	25,015,284	56,612,530	30.6	1,652,060	485,327	1,166,733
1911.....	90,993,960	25,037,891	65,956,069	27.5	1,660,190	601,147	1,059,043

SHIPMENTS TO THE UNITED STATES.

Alaska: ²							
1903.....	\$10,188,220	\$23,151	\$10,165,069	0.2	\$40,349	\$5,906	\$34,443
1904.....	10,100,181	30,634	10,069,547	.3	64,959	9,664	55,295
1905.....	10,698,694	29,052	10,669,642	.8	102,752	3,822	98,930
1906.....	9,208,130	32,311	9,175,819	.4	64,207	4,491	59,716
1907.....	12,106,824	48,908	12,057,916	.4	48,374	9,109	39,265
1908.....	10,917,797	83,913	10,833,884	.8	49,980	19,291	30,689
1909.....	13,055,355	71,808	12,983,547	.6	55,555	14,346	41,209
1910.....	12,349,462	48,178	12,301,284	.4	90,918	10,057	80,861
1911.....	13,813,824	10,288	13,803,536	.1	241,505	8,102	233,403
Guam:							
1901 ³	1,044	1,040	4	99.6			
1902 ⁴	5	(⁵)	5				
1903 ⁴	1,075	943	132	87.7			
1904 ⁴	4,015	943	3,072	23.5			
1905 ⁴	573	(⁵)	573				
Hawaii:							
1901.....	27,903,058	27,637,216	265,842	99.0	(⁷)	(⁷)	(⁷)
1902.....	24,700,429	24,265,131	435,298	98.2	(⁷)	(⁷)	(⁷)
1903.....	26,201,175	25,786,344	414,831	98.4	41,694	3,305	38,389
1904.....	25,133,533	24,795,259	338,274	98.7	23,722	1,928	21,794
1905.....	36,069,109	35,752,389	316,720	99.1	42,946	921	42,025
1906.....	26,850,463	26,504,881	345,582	98.7	31,736	5,346	26,390
1907.....	29,054,581	28,629,120	425,461	98.5	17,232	9,635	7,597
1908.....	41,595,708	41,140,458	455,250	98.9	44,797	15,170	29,627
1909.....	40,395,040	39,828,452	566,588	98.6	37,905	5,051	32,854
1910.....	46,161,288	45,197,960	963,328	97.9	21,977	728	21,249
1911.....	41,180,195	40,116,528	1,063,667	97.4	27,456	5,229	22,227
Philippine Islands: ³							
1901.....	4,420,912	4,375,144	45,768	99.0			
1902.....	6,612,700	6,509,502	103,198	98.4			
1903.....	11,372,584	11,271,669	100,915	99.1			
1904.....	12,066,947	11,995,665	71,282	99.4			
1905.....	12,657,904	12,604,205	53,699	99.6			
1906.....	12,337,927	12,272,461	65,466	99.5			
1907.....	11,510,438	11,394,034	116,404	99.0			
1908.....	10,164,223	9,944,076	220,147	97.8			
1909.....	9,433,986	9,220,157	213,829	97.7			
1910.....	17,317,897	15,299,710	2,018,187	88.3			
1911.....	17,400,398	16,071,387	1,329,011	92.4			
Porto Rico:							
1901.....	5,581,288	5,223,462	357,826	93.6	59,849	(⁵)	59,849
1902.....	8,297,422	6,529,383	1,768,039	78.7	81,344	3,701	77,643
1903.....	10,909,147	9,103,305	1,805,842	83.4	142,048	3,177	138,871
1904.....	11,576,912	10,036,615	1,540,297	86.7	145,914	16,088	129,826

¹ Not exact, due to lack of complete returns to show how much foreign merchandise consisted of farm products.

² Not stated for 1901 and 1902.

³ Imports into the United States, including foreign merchandise, if any.

⁴ Shipments to the United States as reported by the Navy Department.

⁵ Not separately stated.

⁶ Including farm products, if any.

⁷ Not stated.

TABLE 7.—BALANCE OF TRADE and relative magnitude of value of FARM products in the trade of the United States with its NONCONTIGUOUS POSSESSIONS, 1901-1911—Continued.

SHIPMENTS TO THE UNITED STATES—Continued.

Possession and year.	Domestic products.				Foreign products.		
	Total.	Farm products.	Other.	Per cent. farm products of total.	Total.	Farm products.	Other.
Porto Rico—Con.							
1905.....	\$15,527,265	\$13,254,159	\$2,273,106	85.4	\$105,880	\$17,149	\$88,731
1906.....	19,055,474	15,777,973	3,277,501	82.8	86,987	1,017	85,970
1907.....	22,065,245	17,421,155	4,644,090	79.0	4,888	214	4,674
1908.....	25,885,776	21,993,910	3,891,866	85.0	5,485	1,683	3,802
1909.....	26,391,338	21,557,874	4,833,464	81.7	2,974	30	2,944
1910.....	32,095,788	27,219,110	4,876,678	84.8	1,000	109	991
1911.....	34,764,007	28,876,862	5,887,145	83.1	1,402	902	500
Tutuila:¹							
1903.....	9,588	6,782	2,806	70.7	.....	.....	.....
1904.....	25,877	2,230,280	2,597	90.0	.....	.....	.....
1905.....	47,453	2,45,215	2,238	95.3	.....	.....	.....
1906.....	53,245	2,52,496	749	98.6	.....	.....	.....
1907.....	42,935	2,41,524	1,411	96.7	.....	.....	.....
1908.....	66,479	2,66,364	115	99.8	.....	.....	.....
1909.....	67,100	2,67,100	.....	100.0	.....	.....	.....
1910.....	37,234	2,36,843	391	98.9	.....	.....	.....
1911.....	99,040	2,99,040	.....	100.0	.....	.....	.....
All noncontiguous possessions:							
1901.....	37,906,302	37,236,862	669,440	98.2	59,849	(²)	\$ 59,849
1902.....	39,610,556	37,304,016	2,306,540	94.2	81,344	3,701	77,643
1903.....	58,681,789	46,192,194	12,489,595	78.7	224,091	12,388	211,703
1904.....	58,907,465	46,882,396	12,025,069	79.6	234,595	27,680	206,915
1905.....	75,000,998	61,685,020	13,315,978	82.2	251,573	21,892	229,686
1906.....	67,505,239	54,640,122	12,865,117	80.9	182,930	10,854	172,076
1907.....	74,780,023	57,534,741	17,245,282	76.9	70,494	18,958	51,536
1908.....	88,629,983	73,228,721	15,401,262	82.6	100,262	36,144	64,118
1909.....	89,342,819	70,745,391	18,597,428	79.2	96,434	19,427	77,007
1910.....	107,961,669	87,801,801	20,159,868	81.3	113,004	10,210	102,794
1911.....	107,257,464	85,174,105	22,083,359	79.4	270,363	14,233	256,130

¹ Not stated for 1901 and 1902. Returns for 1903 and later years as reported by the Navy Department.² Copra only. Other farm products not specified.³ Not separately stated.⁴ Including farm products, if any.

BALANCE OF TRADE (+) FOR, OR (-) AGAINST, CONTIGUOUS UNITED STATES.

Possession and year.	Domestic products (producers' balance).			Domestic and foreign products (carriers' balance).		
	Total.	Farm products.	Other.	Total.	Farm products.	Other.
Alaska:¹						
1903.....	- \$921,716	+\$2,969,235	-\$3,890,951	- \$718,868	+\$2,972,814	-\$3,691,682
1904.....	- 230,460	+ 3,310,265	- 3,540,725	- 30	+ 3,334,431	- 3,334,461
1905.....	+ 528,925	+ 4,125,624	- 3,596,699	+ 702,809	+ 4,216,976	- 3,514,167
1906.....	+ 5,167,145	+ 5,421,063	- 253,918	+ 5,597,490	+ 5,575,215	+ 22,275
1907.....	+ 5,704,269	+ 6,378,596	- 674,327	+ 6,247,567	+ 6,557,496	- 309,929
1908.....	+ 5,039,779	+ 5,426,070	- 386,291	+ 5,610,126	+ 5,645,288	- 35,162
1909.....	+ 4,131,090	+ 6,438,260	- 2,307,170	+ 4,651,690	+ 6,585,400	- 1,933,710
1910.....	+ 5,623,185	+ 6,452,472	- 829,287	+ 6,229,959	+ 6,627,381	- 397,422
1911.....	+ 1,922,686	+ 5,070,193	- 3,147,507	+ 2,150,401	+ 5,237,634	- 3,087,233
Guam:						
1901.....	+ 33,179	+ 11,673	+ 21,506	+ 33,647	+ 12,141	+ 21,506
1902.....	+ 18,486	+ 6,657	+ 11,829	+ 18,741	+ 6,912	+ 11,829
1903.....	+ 43,864	+ 13,257	+ 30,607	+ 43,864	+ 13,257	+ 30,607
1904.....	+ 91,870	+ 1,802	+ 90,068	+ 97,217	+ 1,802	+ 95,415
1905.....	+ 13,543	+ 3,749	+ 9,794	+ 13,543	+ 3,749	+ 9,794
1906.....	+ 12,392	+ 4,330	+ 8,062	+ 12,392	+ 4,330	+ 8,062
1907.....	+ 17,552	+ 9,462	+ 8,090	+ 17,552	+ 9,462	+ 8,090
1908.....	+ 25,324	+ 8,896	+ 16,428	+ 25,324	+ 8,896	+ 16,428
1909.....	+ 15,569	+ 6,581	+ 8,988	+ 15,569	+ 6,581	+ 8,988
1910.....	+ 28,960	+ 10,217	+ 18,743	+ 28,960	+ 10,217	+ 18,743
1911.....	+ 45,611	+ 8,126	+ 37,485	+ 45,611	+ 8,126	+ 37,485

¹ Not stated for 1901 and 1902.² Not exact, due to lack of complete returns to show how much of foreign merchandise consisted of farm products.

TABLE 7.—BALANCE OF TRADE and relative magnitude of value of FARM products in the trade of the United States with its NONCONTIGUOUS POSSESSIONS, 1901-1911—Continued.

BALANCE OF TRADE (+) FOR, OR (-) AGAINST, CONTIGUOUS UNITED STATES—Contd.

Possession and year.	Domestic products (producers' balance).			Domestic and foreign products (carriers' balance).		
	Total.	Farm products.	Other.	Total.	Farm products.	Other.
Hawaii:						
1901 ¹	-\$27,903,058	-\$27,637,216	- \$265,842	-\$27,903,058	-\$27,637,216	- \$265,842
1902 ¹	-24,700,429	-24,265,131	- 435,298	-24,700,429	-24,265,131	- 435,298
1903.....	-15,413,509	-22,401,281	+ 6,987,772	-15,299,806	-22,335,114	+ 7,035,308
1904.....	-13,531,453	-21,236,202	+ 7,704,749	-13,473,862	-21,204,279	+ 7,730,417
1905.....	-24,425,590	-32,361,922	+ 7,936,332	-24,358,575	-32,309,884	+ 7,951,009
1906.....	-15,079,308	-23,013,060	+ 7,933,752	-14,845,824	-22,944,285	+ 8,098,461
1907.....	-14,930,205	-25,026,525	+10,096,320	-14,636,088	-24,973,627	+10,337,539
1908.....	-26,956,991	-37,296,835	+10,339,844	-26,002,350	-37,244,107	+10,641,757
1909.....	-23,201,821	-35,340,703	+12,138,882	-22,652,167	-35,256,084	+12,603,917
1910.....	-25,872,271	-40,796,851	+14,924,580	-25,623,164	-40,724,024	+15,100,860
1911.....	-19,502,982	-35,307,855	+15,804,873	-19,282,474	-35,224,555	+15,942,081
Midway Islands:²						
1904.....	+ 63,627	+ 95	+ 63,532	+ 63,635	+ 95	+ 63,540
1905.....	+ 16,821	+ 7,079	+ 9,742	+ 16,823	+ 7,079	+ 9,744
1908.....	+ 1,571	+ 772	+ 799	+ 1,571	+ 772	+ 799
Philippine Islands:⁴						
1901.....	- 393,848	-\$1,862,409	+ 1,468,561	- 393,848	- 1,862,409	+ 1,468,561
1902.....	- 1,354,230	- 4,754,824	+ 3,400,594	- 1,354,230	- 4,754,824	+ 3,400,594
1903.....	- 7,333,675	-10,095,658	+ 2,761,983	- 7,333,675	-10,095,658	+ 2,761,983
1904.....	- 7,234,047	-10,619,082	+ 3,385,035	- 7,234,047	-10,619,082	+ 3,385,035
1905.....	- 6,457,284	-11,445,229	+ 4,987,945	- 6,457,284	-11,445,229	+ 4,987,945
1906.....	- 6,878,483	-10,824,687	+ 3,946,204	- 6,878,483	-10,824,687	+ 3,946,204
1907.....	- 2,849,014	-10,064,418	+ 7,215,404	- 2,849,014	-10,064,418	+ 7,215,404
1908.....	+ 1,297,509	- 8,360,518	+ 9,658,027	+ 1,297,509	- 8,360,518	+ 9,658,027
1909.....	+ 1,755,455	- 6,969,415	+ 8,724,870	+ 1,755,455	- 6,969,415	+ 8,724,870
1910.....	+ 485,252	-12,159,936	+11,674,684	+ 485,252	-12,159,936	+11,674,684
1911.....	+ 2,322,715	-13,302,456	+15,625,171	+ 2,322,715	-13,302,456	+15,625,171
Porto Rico:						
1901.....	+ 1,280,629	- 1,733,253	+ 3,013,882	+ 1,324,271	- 1,691,198	+ 3,015,469
1902.....	+ 2,422,022	- 1,710,683	+ 4,132,705	+ 2,503,887	- 1,681,380	+ 4,185,267
1903.....	+ 1,066,987	- 3,437,870	+ 4,504,857	+ 1,194,650	- 3,364,106	+ 4,558,756
1904.....	- 849,897	- 4,847,690	+ 3,997,793	- 512,766	- 4,720,583	+ 4,207,817
1905.....	- 2,139,808	- 7,316,590	+ 5,176,782	- 1,659,075	- 7,199,666	+ 5,540,591
1906.....	- 406,483	- 7,898,406	+ 7,491,923	- 82,420	- 7,743,738	+ 7,826,158
1907.....	+ 3,255,220	- 7,198,211	+10,453,431	+ 3,616,152	- 7,075,258	+10,691,410
1908.....	+ 3,525,410	-12,775,364	+ 9,249,954	+ 3,213,885	-12,677,673	+ 9,463,788
1909.....	- 3,119,168	-11,750,098	+ 8,630,930	- 2,775,767	-11,659,847	+ 8,884,080
1910.....	- 5,617,682	-16,238,046	+10,620,364	- 4,998,243	-16,053,808	+11,055,565
1911.....	- 989,744	-16,499,310	+15,509,566	- 93,451	-16,188,797	+16,095,346
Tutuila:⁵						
1902.....	+ 13,453	+ 2,203	+ 11,250	+ 13,453	+ 2,203	+ 11,250
1903.....	+ 45,087	+ 6,771	+ 38,316	+ 45,087	+ 6,771	+ 38,316
1904.....	+ 13,706	+10,083	+ 23,789	+ 14,321	+10,083	+ 24,404
1905.....	+ 22,217	+26,994	+ 49,211	+ 22,362	+26,994	+ 49,356
1906.....	+ 25,488	+34,627	+ 60,115	+ 25,515	+34,627	+ 60,142
1907.....	+ 21,472	+31,853	+ 53,325	+ 21,580	+31,853	+ 53,433
1908.....	+ 51,508	+60,346	+ 8,838	+ 51,508	+60,346	+ 8,838
1909.....	+ 26,517	+51,770	+ 25,253	+ 26,517	+51,770	+ 25,253
1910.....	+ 52,941	+11,914	+ 64,855	+ 52,941	+11,914	+ 64,855
1911.....	+ 16,479	+ 79,252	+ 62,773	+ 16,479	+ 79,252	+ 62,773
All noncontiguous possessions:⁶						
1901.....	-26,983,098	-31,221,205	+ 4,238,107	-26,938,988	-31,178,682	+ 4,239,694
1902.....	-23,600,698	-30,721,778	+ 7,121,080	-23,518,578	-30,692,220	+ 7,173,642
1903.....	-22,512,962	-32,945,546	+10,432,584	-22,068,748	-32,802,036	+10,733,288
1904.....	-21,676,654	-33,400,895	+11,724,241	-21,045,532	-33,217,699	+12,172,167
1905.....	-32,441,176	-47,014,283	+14,573,107	-31,719,697	-46,753,969	+15,034,272
1906.....	-17,159,249	-36,345,387	+19,186,138	-16,006,190	-35,967,792	+19,961,602
1907.....	- 8,780,706	-35,932,949	+27,152,243	- 7,582,251	-35,578,198	+27,995,947
1908.....	-24,169,726	-53,057,325	+28,887,599	-22,933,213	-52,687,688	+29,754,475
1909.....	-20,445,392	-47,667,205	+27,221,813	-19,031,737	-47,345,135	+28,313,398
1910.....	-26,270,119	-62,744,058	+36,473,939	-24,794,799	-62,312,084	+37,517,285
1911.....	-16,218,193	-60,110,554	+43,892,361	-14,873,677	-59,549,300	+44,675,623

¹ Shipments of domestic products to the United States.² Not stated prior to 1904, and no shipments reported for 1906, 1907, 1909, 1910, or 1911.³ Not exact, due to lack of complete returns to show how much of foreign merchandise consisted of farm products.⁴ For the Philippine Islands the producers' balance of trade can not be computed, owing to lack of necessary data; hence the figures for carriers' balance of trade are repeated in the columns marked "Domestic products (producers' balance)."⁵ Shipments to the United States from Tutuila not reported for 1902; the balance of trade for this year taken to equal the shipments from the United States to Tutuila.⁶ Balance of trade for all contiguous possessions is computed from corresponding balances for each possession.

TABLE 8.—*Value of SHIPMENTS of domestic FARM and FOREST products from the United States to its NONCONTIGUOUS POSSESSIONS, 1909-1911.*

Possessions.	Year ending June 30—		
	1909	1910	1911
FARM PRODUCTS.			
Porto Rico.....	\$9,807,776	\$10,981,064	\$12,377,552
Alaska.....	6,510,068	6,500,650	5,080,481
Hawaii.....	4,487,689	4,401,109	4,808,673
Philippine Islands ¹	2,246,423	3,097,315	2,743,271
Tutuila.....	15,330	24,929	19,788
Guam.....	6,581	10,217	8,126
Total.....	23,073,867	25,015,284	25,037,891
FOREST PRODUCTS.			
Porto Rico.....	581,361	865,173	1,308,579
Hawaii.....	810,010	1,117,311	1,134,178
Alaska.....	607,077	553,857	481,077
Philippine Islands ¹	239,839	322,988	299,059
Guam.....		406	
Total.....	2,238,287	2,859,735	3,222,893

¹ Domestic exports from the United States.TABLE 9.—*Value of SHIPMENTS of principal groups of domestic FARM and FOREST products from the United States to its NONCONTIGUOUS POSSESSIONS, 1909-1911.*

Group of articles.	Year ending June 30—		
	1909	1910	1911
FARM PRODUCTS.			
<i>Animal matter.</i>			
Animals, live.....	\$647,470	\$410,116	\$448,733
Dairy products.....	1,613,773	1,839,706	1,735,046
Eggs.....	447,161	493,786	411,323
Packing-house products.....	4,346,568	4,972,227	5,232,953
Other animal matter.....	154,239	122,039	123,615
Total animal matter.....	7,209,211	7,837,874	7,951,670
<i>Vegetable matter.</i>			
Coffee.....	220,658	252,181	287,152
Fruits.....	821,841	910,570	884,590
Grain and grain products.....	5,450,854	6,426,729	6,065,909
Hay.....	806,843	719,473	591,320
Liquors, alcoholic.....	1,713,516	1,709,916	1,730,297
Oils, vegetable.....	149,601	192,370	219,151
Rice, rice meal, etc.....	3,543,559	3,805,876	3,910,054
Sugar, molasses, and sirup.....	878,622	859,935	977,019
Tobacco.....	471,591	371,215	357,529
Vegetables.....	1,525,956	1,643,786	1,742,747
Other vegetable matter.....	281,615	285,359	320,553
Total vegetable matter.....	15,864,656	17,177,410	17,086,221
Total farm products.....	23,073,867	25,015,284	25,037,891
FOREST PRODUCTS.			
Lumber.....	2,123,787	2,699,749	3,089,303
Naval stores.....	52,281	48,547	70,559
Timber and logs.....	55,298	102,324	60,650
Other forest products.....	6,921	9,115	2,381
Total forest products.....	2,238,287	2,859,735	3,222,893
Total farm and forest products.....	25,312,154	27,875,019	28,260,784

TABLE 10.—SHIPMENTS of domestic FARM and FOREST products from the United States to ALASKA, 1909-1911.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS.						
<i>Animal matter.</i>						
Animals, live:						
Cattle.....number..	2,672	\$177,150	1,654	\$110,277	1,205	\$98,087
Fowls.....		12,087		9,266		(1)
Horses.....number..	421	92,845	274	59,750	155	30,145
Mules.....do.....	6	800	11	2,400		
Sheep.....do.....	4,495	29,027	612	3,642	549	6,926
Swine.....do.....	1,075	11,165	1,167	18,414	1,022	15,473
All other.....		336		135		8,461
Total live animals.....		323,410		203,884		159,092
Dairy products:						
Butter.....pounds..	1,683,714	487,455	1,771,426	552,417	1,201,923	364,907
Cheese.....do.....	319,081	52,689	359,020	64,878	226,225	40,715
Milk, condensed.....do.....	(2)	352,488	4,966,206	361,860	3,550,023	274,577
Total dairy products.....	(2)	892,632	7,096,652	979,155	4,978,171	680,199
Eggs.....dozen..	1,433,785	425,130	1,417,613	468,560	1,215,376	378,923
Packing-house products:						
Beef—						
Canned.....pounds..	472,638	50,494	733,752	88,328	379,791	55,321
Cured—						
Salted or pickled, pounds.....	305,113	21,251	512,241	34,835	317,137	28,396
Other.....pounds..	9,910	1,194	1,350	157		
Total cured, pounds.....	315,023	22,445	513,591	34,992	317,137	28,396
Fresh.....pounds..	4,448,510	392,371	3,893,205	362,573	3,576,974	353,863
Oleomargarine (imitation butter), pounds.....	120	21	378	83		
Tallow.....pounds..	43,342	2,950	91,760	7,205	52,568	4,016
Total beef.....do.....	5,279,633	468,281	5,232,686	493,181	3,629,542	441,596
Lard compounds ² do.....	104,878	8,428	187,287	18,253	159,320	16,857
Meat, canned, other.....		38,478		45,285		
Mutton.....pounds..	703,739	68,061	547,682	54,094	500,101	49,873
Pork—						
Canned.....do.....	25,725	3,149	28,969	4,836		
Cured—						
Bacon.....do.....	1,427,918	248,649	1,313,450	262,850	984,725	220,831
Hams and shoulders.....pounds..	1,899,817	293,888	1,597,792	275,441	1,087,270	197,204
Salted or pickled, pounds.....	205,183	20,548	209,150	26,032		
Total cured, pounds.....	3,532,918	563,085	3,120,392	564,323	2,071,995	418,035
Fresh.....pounds..	613,361	70,447	516,484	71,045	480,284	411,569
Lard.....do.....	726,173	87,429	663,356	95,005	426,425	60,080
Oils, lard oil.....gallons..	1,196	922	1,930	1,672		
Total pork.....		725,032		736,881		588,684
Sausage and sausage meats.....pounds..	198,382	23,577	213,874	25,368		
Other packing-house products.....		28,534		40,424		64,682
Total packing-house products.....		1,360,391		1,413,486		1,161,692

¹ Included in "All other," live animals.² Not stated.³ Including stearin, cottolene, and lardine.⁴ Including canned, salted, or pickled.

TABLE 10.—SHIPMENTS of domestic FARM and FOREST products from the United States to ALASKA, 1909-1911—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
Animal matter—Continued.						
Poultry and game.....		\$95,665		\$69,213		\$70,218
Other animal matter.....		11,258		4,359		
Total animal matter.....		3,108,486		3,138,657		2,450,124
Vegetable matter.						
Coffee—green, or raw, and roasted or prepared, pounds.....	751,997	165,604	701,602	150,568	520,420	119,493
Fruits:						
Fresh or dried—						
Apples—						
Dried..... pounds..	210,754	15,900	250,876	23,152		
Fresh..... barrels.	10,653	49,529	8,787	54,576	9,483	50,802
Apricots, dried, pounds.....	69,469	6,735	71,253	8,101		
Oranges..... boxes..	11,127	39,053	10,843	35,324	11,804	42,536
Peaches, dried, pounds.....	66,878	5,393	85,140	6,981		
Pears, fresh.....		9,670		12,191		
Prunes..... pounds..	251,466	14,623	332,172	20,519		
Raisins..... do.....	102,229	6,751	117,952	8,177		
Other.....		70,210		76,220		129,235
Total fresh or dried.....		217,864		245,241		222,573
Preserved—						
Canned.....		229,079		203,446		
Other.....		955		1,924		
Total preserved.....		230,034		205,370		138,225
Total fruits.....		447,898		450,611		360,798
Grain and grain products:						
Bran, middlings, and mill feed..... tons.....	1,039	28,769	1,070	30,534		
Bread and biscuit, pounds.....	1,323,759	78,102	1,402,553	88,348	1,140,985	76,985
Oats..... bushels.....	393,881	213,925	349,836	208,565	274,852	135,236
Oatmeal..... pounds..	619,483	24,383	792,141	30,703	458,087	16,460
Wheat flour..... barrels.....	54,016	281,306	65,722	374,953	47,018	238,594
Other.....		89,535		93,857		100,212
Total grain and grain products.....		716,020		826,960		567,487
Hay..... long tons.....	8,862	206,467	7,606	197,589	5,451	145,388
Liquors, alcoholic:						
Distilled spirits—						
Alcohol, ¹ including cognac spirits, proof gallons.....	1,616	3,744	2,542	4,538		
Brandy..... proof galls..	6,676	19,666				
Rum..... do.....	2,127	5,485	2,093	5,163		
Whisky—						
Bourbon..... do.....	33,259	91,635	32,871	86,338	135,890	351,124
Rye..... do.....	82,686	237,719	68,234	176,442		
Total whisky, proof gallons.....	115,945	329,354	101,105	262,780		
Other..... do.....	34,908	96,156	52,707	143,487		
Total distilled spirits, proof gallons.....	161,272	454,405	158,447	415,968	135,890	351,124

¹ Excluding wood alcohol.

TABLE 10.—**SHIPMENTS** of domestic **FARM** and **FOREST** products from the United States to **ALASKA**, 1909-1911—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Liquors, alcoholic—Contd.						
Malt liquors—						
Bottled . . doz. bottles..	¹ 111,668	\$176,834	93,250	\$145,721	} ² 558,912	\$226,193
Unbottled.... gallons..	247,599	71,517	201,894	66,056		
Total malt liquors...		248,351		211,777	² 558,912	226,193
Wines—						
Bottled . . doz. quarts..	1,565	9,199	1,414	7,707	} ² 34,762	27,012
Unbottled.... gallons..	38,427	28,712	28,258	19,369		
Total wines.....		37,911		27,076	² 34,762	27,012
Total alcoholic liquors.....		740,667		654,821	² 729,564	604,329
Nuts.....		18,402		19,166		18,650
Oils, vegetable:						
Fixed or expressed—						
Linseed..... gallons..	13,631	8,617	12,562	10,296		
Other.....		7,140		8,058		
Total fixed or expressed.....		15,757		18,354		
Volatile or essential.....		836		821		
Total vegetable oils.....		16,593		18,875		15,545
Rice..... pounds..	1,134,537	58,902	1,166,735	54,597	890,750	36,487
Starch..... do..	93,677	5,826	101,803	6,225		
Sugar, molasses, and sirup:						
Molasses..... gallons..	8,322	4,195	7,488	3,756	} ² 33,761	25,693
Sirup..... do..	60,342	49,252	53,201	46,262		
Sugar, refined... pounds..	6,111,255	347,741	5,522,515	319,131	4,296,000	241,052
Total sugar, molasses, and sirup...		401,188		369,149		266,745
Tobacco, leaf..... pounds..	8,330	2,559	18,623	6,659	10,884	3,918
Vegetables:						
Fresh or dried—						
Beans and peas, bushels.....	16,229	39,819	19,225	53,657	11,893	34,865
Onions..... bushels..	17,042	21,942	18,658	21,197	14,441	20,233
Potatoes..... do.....	181,568	187,613	226,581	186,512	164,250	161,363
Total fresh or dried, bushels.....	214,839	249,374	264,464	261,366	190,584	216,461
Prepared or preserved—						
Canned.....		206,097		186,058		
Other ³		143,403		139,573		
Total prepared or preserved.....		349,500		325,631		264,048
Total vegetables.....		598,874		586,997		480,509
Other vegetable matter.....		22,582		19,776		11,008
Total vegetable matter.....		3,401,582		3,261,993		2,630,357
Total farm products.....		6,510,068		6,500,650		5,080,481

¹ Dozen quarts.² Gallons.³ Chiefly pickles, sauces, and relishes, but including also some fresh vegetables.

TABLE 10.—**SHIPMENTS** of domestic **FARM** and **FOREST** products from the United States to **ALASKA**, 1909-1911—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS.						
Naval stores:						
Turpentine, spirits of, gallons.....	5, 289	\$3, 341	2, 769	\$2, 039	.....	.....
Other.....barrels.....	440	2, 527	769	4, 341	.....	.....
Total naval stores.....	.....	5, 868	.....	6, 380	.....	\$17, 753
Wood:						
Lumber—						
Boards, deals, and planks.....M feet..	23, 429	310, 064	22, 129	334, 019	13, 478	213, 465
Shingles.....M.....	2, 742	5, 503	2, 959	5, 754	3, 718	7, 766
Shooks, box.....	.....	231, 986	.....	147, 314	.....	206, 107
Other lumber.....	.....	17, 256	.....	30, 482	.....	35, 986
Total lumber.....	.....	564, 809	.....	517, 569	.....	463, 324
Timber and logs—						
Logs.....	.....	15, 936	.....	16, 733	.....	.....
Sawed timber.M feet..	1, 377	17, 277	800	9, 484	.....	.....
Total timber and logs.....	.....	33, 213	.....	26, 217	.....	.....
Other wood.....	.....	1, 337	.....	202	.....	.....
Total wood.....	.....	599, 359	.....	543, 988	.....	463, 324
Other forest products.....	.....	1, 850	.....	3, 489	.....	.....
Total forest products.....	.....	607, 077	.....	553, 857	.....	481, 077
Total farm and forest products.....	.....	7, 117, 145	.....	7, 054, 507	.....	5, 561, 558

TABLE 11.—**RECEIPTS** in **GUAM** of **FARM** and **FOREST** products from the United States, 1909-1911.¹

Article.	Year ending June 30—		
	1909	1910	1911
FARM PRODUCTS.			
<i>Animal matter.</i>			
Animals, live, horses.....	\$155	.....	.....
Dairy products.....	123	\$28	.....
Packing-house products.....	637	1, 839	.....
Total animal matter.....	915	1, 867	.....
<i>Vegetable matter.</i>			
Fruits.....	249	345	\$210
Grain products.....	3, 782	3, 999	7, 760
Liquors, alcoholic.....	5	1, 908	33
Sugar, molasses, and sirup.....	841	305	.....
Vegetables.....	485	239	.....
Other.....	304	1, 554	123
Total vegetable matter.....	5, 666	8, 350	8, 126
Total farm products.....	6, 581	10, 217	8, 126
FOREST PRODUCTS.			
Total forest products.....	.....	406	.....
Total farm and forest products.....	6, 581	10, 623	8, 126

¹ Compiled from returns made by the naval officer in command of Guam.

TABLE 12.—SHIPMENTS of domestic FARM and FOREST products from the United States to HAWAII, 1909-1911.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS.						
<i>Animal matter.</i>						
Animals, live:						
Cattle.....number..	119	\$8,550	152	\$16,980	145	\$15,838
Fowls.....		5,851		5,413		(1)
Horses.....number..	718	124,891	136	28,760	430	72,881
Mules.....do.....	797	156,710	668	133,995	555	125,171
Sheep.....do.....	39	424	100	510	189	2,793
Swine.....do.....	1,660	17,887	411	4,637	5	145
All other.....		245		207		8,941
Total live animals.....		314,558		190,502		225,709
Dairy products:						
Butter.....pounds..	595,969	173,648	572,097	179,791	629,486	180,886
Cheese.....do.....	232,347	34,144	220,461	39,003	210,834	35,470
Milk, condensed.....do.....	(2)	135,154	1,917,170	185,039	2,324,201	209,656
Total dairy products.....	(2)	342,946	2,709,728	403,833	3,164,521	426,012
Eggs.....dozen.....	81,874	21,790	86,670	25,170	106,440	28,040
Packing-house products:						
Beef—						
Canned.....pounds..	590,541	67,054	481,264	59,391	284,760	39,320
Cured—						
Salted or pickled,						
pounds.....	27,000	1,693	76,195	5,411	62,570	5,092
Other.....pounds..			48	12		
Fresh.....do.....	237,227	22,284	58,733	5,329	437,991	44,466
Oleomargarine (imita-						
tion butter). pounds..	48,800	4,769	38,360	3,917	45,011	4,450
Total beef.....do.....	903,568	95,800	654,600	74,060	880,332	93,328
Grease and grease scraps						
and all soap stock.....		13,118		11,743		17,608
Meat, canned, other.....		43,951		65,206		63,252
Lard compounds ³ . pounds.	1,302,589	91,680	1,176,824	104,574	1,166,577	114,778
Mutton.....do.....	25,870	2,521	8,659	899	42,413	4,415
Pork—						
Canned.....do.....	450	89	8,145	1,053	2,930	464
Cured—						
Bacon.....do.....	133,625	21,946	120,432	25,255	123,523	29,501
Hams and shoul-						
ders.....pounds..	450,830	69,235	444,104	79,645	459,464	78,842
Salted or pickled,						
pounds.....	80,495	8,788	76,100	10,955	38,572	5,458
Total cured,						
pounds.....	664,950	99,969	640,636	115,855	621,559	113,801
Fresh.....pounds..	155,293	19,362	49,806	7,375	43,139	5,249
Lard.....do.....	156,962	18,516	141,791	20,686	156,792	20,166
Lard oil.....gallons..	1,708	1,317	665	608		
Total pork.....		139,253		145,577		139,680
Sausage and sausage						
meats.....pounds..	55,651	8,549	63,710	9,357	70,670	9,624
Other packing-house prod-						
ucts.....		15,289		21,117		20,559
Total packing-house						
products.....		410,161		432,533		463,244
Poultry and game.....		30,992		32,041		31,596
Other animal matter.....		5,409		3,933		7,597
Total animal matter.....		1,125,849		1,088,012		1,182,258

¹ Included in "All other," live animals.² Not stated.³ Including stearin, cottolene, and lardine.

TABLE 12.—SHIPMENTS of domestic FARM and FOREST products from the United States to HAWAII, 1909-1911—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter.</i>						
Coffee, roasted or prepared, pounds.....	101,742	\$14,980	121,133	\$18,553	91,490	\$15,295
Fruits:						
Fresh or dried—						
Apples—						
Dried....pounds..	28,430	1,929	34,835	3,013	40,305	4,099
Fresh....barrels..	20,842	41,243	23,487	50,459	21,819	54,123
Apricots, dried, pounds.....	2,370	210	5,525	626	5,975	763
Oranges....boxes..	25,784	57,353	32,363	70,286	35,584	80,952
Peaches, dried, pounds.....	3,475	234	5,090	361	2,294	176
Pears, fresh.....		1,795		2,972		2,827
Prunes....pounds..	46,140	2,647	62,705	3,381	63,799	5,635
Raisins....do.....	68,972	4,759	85,745	5,449	89,453	6,392
Other.....		38,892		41,758		46,341
Total fresh or dried.....		149,062		178,305		201,308
Preserved—						
Canned.....		24,108		42,013		41,218
Other.....		6,199		8,484		11,452
Total preserved.....		30,307		50,497		52,670
Total fruits.....		179,369		228,802		253,978
Glucose.....pounds..	149,937	3,865	108,148	2,401	60,971	1,578
Grain and grain products:						
Grain—						
Barley.....bushels..	575,819	410,637	781,814	514,573	1,201,694	678,386
Corn.....do.....	58,937	55,595	40,967	38,218	61,079	52,564
Oats.....do.....	152,695	81,101	150,926	77,245	97,379	50,733
Wheat.....do.....	69,692	73,133	68,053	71,891	74,863	68,388
Total grain....do....	857,143	620,466	1,041,760	701,927	1,435,015	850,071
Grain products—						
Bran, middlings, and mill feed.....tons..	22,942	604,480	16,877	452,349	13,494	348,687
Breadstuff preparations—						
Bread and biscuit, pounds.....	469,877	37,036	326,982	25,693	219,379	18,347
Other.....		100,942		161,957		164,890
Total breadstuff preparations.....		137,978		187,650		183,237
Malt.....bushels..	13,952	11,681	16,992	13,988		
Meal and flour—						
Corn meal, barrels.....	90	468	138	678	231	1,094
Oatmeal, pounds.....	39,532	1,731	37,900	1,885	38,310	1,795
Rye flour, barrels.....	45	205				
Wheat flour, do.....	121,838	567,603	103,548	535,732	118,377	534,399
Total meal and flour.....		570,007		538,295		537,288
All other.....		28,506		24,572		25,452
Total grain products.....		1,352,652		1,216,854		1,094,664
Total grain and grain products.....		1,973,118		1,918,781		1,944,735
Hay.....long tons..	11,449	234,110	9,026	191,118	13,894	250,745
Hops.....pounds.....	17,547	2,448	18,297	3,303	14,572	2,478

TABLE 12.—SHIPMENTS of domestic FARM and FOREST products from the United States to HAWAII, 1909-1911—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
Vegetable matter—Continued.						
Liquors, alcoholic:						
Distilled spirits—						
Alcohol, ¹ including						
cologne spirits,						
proof gallons.....	1,740	\$2,314	754	\$625	1,016	\$1,875
Brandy.....pf. galls..	1,746	4,100				
Rum.....do.....	48	120				
Whisky—						
Bourbon.....do.....	24,581	56,425	22,642	52,986	35,248	79,026
Rye.....do.....	8,494	28,956	7,660	13,318	6,286	16,612
Total whiskey,						
proof galls.....	33,075	85,381	30,302	66,304	41,534	95,638
Other.....proof galls..	23,870	52,688	23,611	55,555	23,252	47,927
Total distilled spir-						
its.....proof galls..	60,479	144,603	54,667	122,484	65,802	145,440
Malt liquors—						
Bottled.....doz. qts..	58,624	80,016	72,256	101,432	82,138	113,338
Unbottled.....gallons..	41,834	11,807	36,513	9,235	33,363	8,567
Total malt liquors...		91,823		110,667		121,905
Wines—						
Bottled.....doz. qts..	1,802	9,504	2,358	13,482	2 868,835	371,596
Unbottled.....gallons..	722,188	315,119	827,371	318,405		
Total wines.....		324,623		331,887	2 868,835	371,596
Total alcoholic liq-						
uors.....		561,049		565,038		638,941
Oils, vegetable:						
Fixed or expressed—						
Cottonseed.....pounds..	7,042	602	9,590	906	11,782	1,335
Linseed.....gallons..	49,046	29,749	42,059	32,773	45,942	49,127
Other.....		15,879		14,994		19,774
Total fixed or ex-						
pressed.....		46,230		48,673		70,236
Volatile or essential.....		700		254		402
Total vegetable oils.....		46,930		48,927		70,638
Rice.....pounds..	109,300	4,358	70,000	2,600	144,500	6,581
Starch.....do.....	311,029	12,737	313,222	15,712	226,713	12,345
Sugar, molasses, and sirup:						
Molasses.....gallons..	2,986	1,380	2,225	1,311	2,097	1,090
Sirup.....do.....	4,402	2,837	6,141	4,382	6,068	3,767
Sugar, refined.....pounds..	926,616	52,023	622,242	34,965	1,290,489	71,023
Total sugar, molasses,						
and sirup.....		56,240		40,658		75,880
Vegetables:						
Fresh or dried—						
Beans and peas,						
bushels.....	18,592	39,196	17,463	42,769	15,654	42,522
Onions.....bushels..	18,637	13,697	24,396	18,731	25,067	26,279
Potatoes.....do.....	114,639	99,550	127,895	80,606	111,921	118,758
Total fresh or dried,						
bushels.....	151,868	152,443	169,754	142,106	152,642	187,559

¹ Excluding wood alcohol.² Gallons.

TABLE 12.—SHIPMENTS of domestic **FARM** and **FOREST** products from the United States to **HAWAII**, 1909-1911—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Vegetables—Continued.						
Prepared or preserved—						
Canned.....		\$34,851		\$50,389		\$68,327
Other ¹		45,308		41,011		45,501
Total prepared * or preserved.....		80,159		91,400		113,828
Total vegetables.....		232,602		233,506		301,387
Other vegetable matter.....		40,034		43,698		51,834
Total vegetable matter.....		3,361,840		3,313,097		3,626,415
Total farm products.....		4,487,689		4,401,109		4,808,673
FOREST PRODUCTS.						
Naval stores:						
Rosin..... barrels..	821	3,598	674	3,484	710	4,050
Tar..... do.....	202	1,122	952	4,535	379	1,633
Turpentine and pitch, barrels.....	442	1,766				
Turpentine, spirits of, gallons.....	11,940	7,241	13,264	8,804	15,833	12,895
Total naval stores.....		13,727		16,823		18,578
Wood:						
Lumber—						
Boards, deals, and planks..... M feet..	41,528	647,791	61,001	946,785	61,089	927,788
Shingles..... M..	16,885	34,536	18,486	39,918	24,031	48,938
Shooks, box.....		71,334		59,181		105,218
Other lumber.....		32,801		37,270		21,944
Total lumber.....		786,462		1,083,154		1,103,888
Timber².....		8,748		15,688		11,567
Total wood.....		795,210		1,098,842		1,115,455
Other forest products.....		1,073		1,646		145
Total forest products.....		810,010		1,117,311		1,134,178
Total farm and forest products.....		5,297,699		5,518,420		5,942,851

¹ Chiefly pickles, sauces, and relishes, but including also some fresh vegetables.² Including unmanufactured wood, not elsewhere specified.

TABLE 13.—**EXPORTS** of domestic **FARM** and **FOREST** products from the United States to the **PHILIPPINE ISLANDS**, 1909-1911.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS.						
<i>Animal matter.</i>						
Animals, live.....				\$353		\$785
Dairy products:						
Butter.....pounds..	11,642	\$2,975	332	102	15,890	3,652
Cheese.....do.....	1,114	195	5,260	1,031	8,064	1,705
Milk, condensed.....do.....	(1)	124,790	1,998,829	163,785	3,056,286	235,681
Total dairy products, pounds.....	(1)	127,960	2,004,421	164,918	3,080,240	241,038
Packing-house products:						
Beef—						
Canned.....pounds..	365,538	40,202	540,422	67,710	200,007	24,340
Cured—						
Salted or pickled, pounds.....			1,050	101		
Other cured, pounds.....	480	90	240	57	120	25
Total cured, pounds.....	480	90	1,290	158	120	25
Oleomargarine (imitation butter), pounds.	1,000	100			1,880	362
Tallow.....do.....			4,905	344		
Total beef....do....	367,018	40,392	546,617	68,212	202,007	24,727
Grease, grease scraps, and all soap stock.....		8,585		11,600		18,790
Lard compounds, ² pounds.....	436,855	35,950	159,850	15,451	311,633	29,963
Meat, canned, not elsewhere specified.....		49,849		116,824		77,757
Pork—						
Canned.....pounds..	97,719	16,009	53,729	10,464	6,588	771
Cured—						
Bacon.....do.....	571,211	87,529	684,391	108,572	542,764	109,188
Hams and shoulders.....pounds..	182,653	26,226	355,563	53,758	236,764	44,390
Salted or pickled, pounds.....	600	98	12,100	1,819	40,000	5,750
Total cured, pounds.....	754,464	113,853	1,052,054	164,149	819,528	159,328
Fresh.....pounds..			51,442	6,793	48,371	7,552
Lard.....do.....	354,530	37,607	354,468	47,800	429,731	53,926
Lard oil.....gallons..	10,760	9,393	1,000	1,070		
Total pork.....		176,862		230,276		221,577
Sausage and sausage meats.....pounds..	242,569	37,260	300,908	32,943	127,779	14,177
Other packing-house products ³		10,574		26,757		10,651
Total packing-house products.....		359,472		502,063		397,642
Other animal matter.....		5,985		5,661		6,533
Total animal matter.....		493,417		672,995		645,998

¹ Not stated.² Including stearin, cottolene, and lardine.³ Including meat, if any, not elsewhere specified.

TABLE 13.—EXPORTS of domestic FARM and FOREST products from the United States to the PHILIPPINE ISLANDS, 1909-1911—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
Vegetable matter.						
Coffee, green or raw, and roasted or prepared, pounds.....	228,323	\$40,074	530,543	\$82,843	1,078,602	\$151,131
Cotton, upland 1.....	1,455 {	78,363 {	1,100 {	76,350 {	900 {	70,316 {
	779,671 }		578,142 }		474,434 }	
Fruits:						
Fresh or dried—						
Apples—						
Dried.....pounds..	6,248	469	12,775	1,232	18,565	2,046
Fresh.....barrels..	1,026	2,461	2,313	6,711	3,202	14,064
Apricots, dried, pounds.....	1,250	115	8,370	939	4,335	573
Oranges.....boxes..	633	1,512	1,331	4,184	1,710	5,344
Peaches,dried,pounds..	1,934	166	5,265	506	7,115	617
Prunes.....do.....	14,006	846	41,555	2,420	37,360	3,032
Raisins.....do.....	25,984	1,639	110,146	6,906	204,015	12,942
Other.....do.....		15,545		10,252		12,424
Total fresh or dried.....		22,753		33,150		51,042
Preserved—						
Canned.....do.....		56,378		63,207		57,208
Other.....do.....		6,516		6,183		5,759
Total preserved.....do.....		62,894		69,390		62,967
Total fruits.....do.....		85,647		102,540		114,009
Glucose.....pounds..	70,272	1,622			114,644	2,832
Grain and grain products:						
Grain—						
Barley.....bushels..			1,042	674	3,350	2,286
Corn.....do.....					160	153
Oats.....do.....	817,483	427,818	601,685	288,471	470,117	215,497
Rye.....do.....	480	496				
Wheat.....do.....					45	53
Total grain...do.....	817,963	428,314	602,727	289,145	473,672	217,989
Grain products—						
Bran, middlings, and mill feed..... tons..	144	4,609	57	1,860		
Breadstuff preparations—						
Bread and biscuit.....pounds..	33,397	2,364	116,588	9,314	69,968	4,973
Other.....pounds..		34,249		38,225		28,784
Total breadstuff preparations.....		36,613		47,539		33,757
Meal and flour—						
Corn meal... bbls..	879	3,711	445	1,451	476	1,719
Oatmeal.....lbs.....	50,359	2,072			70,485	3,389
Rye flour.....bbls..			143,273	5,934	13	69
Wheat flour,do.....	80,088	326,805	250,442	1,049,611	226,629	887,376
Total meal and flour.....		332,588		1,056,996		892,553
All other.....do.....		5		284		48
Total grain products.....		373,815		1,106,670		926,358
Total grain and grain products.....		802,129		1,395,824		1,144,347
Hay.....long tons..	14,730	366,266	12,916	318,804	8,108	179,248

¹ Including linters.

TABLE 13.—**EXPORTS** of domestic **FARM** and **FOREST** products from the *United States to the PHILIPPINE ISLANDS, 1909-1911*—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Liquors, alcoholic:						
Distilled spirits—						
Alcohol, ¹ including						
cologne spirits, proof						
galls.....	6,960	\$6,770	4,572	\$5,075	1,680	\$1,725
Brandy.... proof galls..	168	371				
Whisky—						
Bourbon.... do....	14,599	26,325	17,401	31,694	13,900	18,168
Rye..... do....	28,037	40,885	32,674	60,578	21,083	43,941
Total whisky,						
proof galls....	42,636	67,210	50,075	92,272	34,983	62,109
Other..... proof galls..	768	1,493	5,801	10,385	9,139	11,831
Total distilled spir-						
its..... proof galls..	50,532	75,844	60,448	107,732	45,802	75,665
Malt liquors—						
Bottled..... doz. qts..	49,960	74,280	51,020	69,614	48,169	71,836
Unbottled.... gallons..					27,340	7,490
Total malt liquors...		74,280		69,614		79,326
Wines—						
Bottled..... doz. qts..	449	2,322	1,380	6,769	2 12,186	6,746
Unbottled.... gallons..	3,486	1,444	29,962	8,883		
Total wines.....		3,766		15,652	2 12,186	6,746
Total alcoholic						
liquors.....		153,890		192,998		161,737
Oils, vegetable:						
Fixed or expressed—						
Linseed..... gallons..	2,000	1,271	21,144	17,063	9,474	10,491
Other.....		5,367		6,563		3,780
Total fixed or ex-						
pressed.....		6,638		23,626		14,271
Volatile or essential.....		66		868		425
Total vegetable oils....		6,704		24,494		14,696
Sugar, molasses, and sirup:						
Molasses..... gallons..	1,340	497	1,276	532	856	384
Sirup..... do....	13,865	10,135	8,925	6,408	25,502	16,319
Sugar, refined.... pounds..	10,255	563	51,841	2,810	319,392	14,928
Total sugar, molasses,						
and sirup.....		11,195		9,750		31,631
Tobacco, leaf..... pounds..	6,100	974	118,692	39,478	5,596	4,013
Vegetables:						
Fresh or dried—						
Beans and peas,						
bushels.....	7,357	21,111	8,337	24,452	6,746	18,199
Onions..... bushels..	1,106	990				
Potatoes..... do....	348	473	3,140	2,936	326	373
Total fresh or						
dried..... bushels..	8,811	22,574	11,477	27,388	7,072	18,572

¹ Excluding wood alcohol.² Gallons.

TABLE 13.—**EXPORTS** of domestic **FARM** and **FOREST** products from the United States to the **PHILIPPINE ISLANDS**, 1909-1911—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Vegetables—Continued.						
Prepared or preserved—						
Canned.....		\$116,930		\$93,121		\$116,574
Other ¹		40,328		38,068		48,465
Total prepared or preserved.....		157,258		131,189		165,039
Total vegetables.....		179,832		158,577		183,611
Other vegetable matter.....		26,310		22,662		39,702
Total vegetable matter.....		1,753,006		2,424,320		2,097,273
Total farm products.....		2,246,423		3,097,315		2,743,271
FOREST PRODUCTS.						
Naval stores:						
Turpentine, spirits of, gallons.....	39,650	19,818	13,959	10,067	28,350	23,998
Other.....barrels.....	371	1,641	823	3,558	222	1,452
Total naval stores.....		21,459		13,625		25,450
Wood:						
Logs.....		900		5,265		16,115
Lumber—						
Boards, deals, and planks.....M feet.....	14,796	186,944	22,276	282,016	17,778	239,785
Shingles.....M.....	131	244	10	23		
Shooks, box.....		936		822		3,117
Other shooks.....No.....					3,472	2,000
Other.....		20,310		20,958		12,030
Total lumber.....		208,434		303,819		256,932
Timber, sawed.....M feet.....	985	8,999				
Other forest products.....		47		279		562
Total forest products.....		239,839		322,988		299,059
Total farm and forest products.....		2,486,262		3,420,303		3,042,330

¹ Chiefly pickles, sauces, and relishes, but including also some fresh vegetables.

TABLE 14.—SHIPMENTS of domestic FARM and FOREST products from the United States to PORTO RICO, 1909-1911.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS.						
<i>Animal matter.</i>						
Animals, live:						
Cattle.....number..	30	\$3,740	11	\$1,010	35	\$3,965
Fowls.....		531		651		(1)
Horses.....number..	6	2,175	34	6,800	33	12,225
Mules.....do.....	3	2,100	18	4,400	143	32,235
Sheep.....do.....	6	40			1	20
Swine.....do.....	3	30				
All other.....		731		2,516		14,642
Total live animals.....		9,347		15,377		63,087
Dairy products:						
Butter.....pounds..	504,475	103,564	614,898	125,647	870,522	153,124
Cheese.....do.....	539,617	81,910	432,393	71,970	470,463	78,712
Milk, condensed.....do.....	(2)	64,638	1,300,067	94,155	2,078,837	150,726
Total dairy products, pounds.....	(2)	250,112	2,347,358	291,772	3,419,822	382,562
Glue.....pounds.....	18,301	1,910	35,063	3,620		
Packing-house products:						
Beef—						
Canned.....pounds..	96,042	11,946	140,533	19,063	141,655	22,363
Cured—						
Salted or pickled, pounds.....	22,916	1,800	108,794	9,274	555,532	67,585
Other.....pounds..	4,771	604	471,543	66,465		
Total cured, pounds.....	27,687	2,404	580,337	75,739	555,532	67,585
Fresh.....pounds..	7,852	788				
Oleomargarine (imitation butter) pounds.....	4,885	496	23,075	2,500	5,070	755
Tallow.....do.....	434,999	21,789			2,000	145
Total beef....do....	571,465	37,423	743,945	97,302	704,257	90,848
Grease, grease scraps, and all soap stock						
		13,363		15,180		18,876
Lard compounds,³ pounds.....						
	6,864,711	565,415	8,525,069	844,188	9,041,222	854,916
Pork—						
Canned.....pounds..	64,777	7,874	137,298	19,866	113,699	18,424
Cured—						
Bacon.....do.....	373,452	39,934	199,920	27,425	135,985	18,728
Ham and shoulders.....pounds..	4,327,924	454,096	2,830,978	341,750	3,663,620	491,037
Salted or pickled, pounds.....	9,383,320	758,368	8,700,904	940,420	12,430,220	1,359,110
Total cured, pounds.....	14,084,696	1,252,398	11,731,802	1,309,595	16,229,825	1,868,875
Lard.....pounds..	1,941,472	219,349	1,911,960	252,158	2,189,732	251,147
Oils—lard oil.gallons..	416	277	693	636		
Total pork.....		1,479,898		1,582,255		2,138,446
Sausage and sausage meats.....pounds..	745,297	87,045	421,785	51,837	487,483	68,482
Other packing-house products.....		23,797		28,249		38,807
Total packing-house products.....		2,211,941		2,619,011		3,210,375
Other animal matter.....						
		3,268		3,268		12,031
Total animal matter.....		2,476,578		2,933,048		3,668,055

¹ Included in "All other," live animals.² Not stated.³ Including stearin, cottolene, and lardine.

TABLE 14.—SHIPMENTS of domestic FARM and FOREST products from the United States to PORTO RICO, 1909-1911—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter.</i>						
Cocoa, gound, or prepared, and chocolate.....		\$13,963		\$16,516		\$24,584
Fruits:						
Fresh or dried—						
Apples, fresh. barrels..	3,114	11,946	2,857	11,993	3,836	16,106
Raisins.....pounds..	173,773	13,447	348,268	22,441	496,871	30,737
Other, fresh or dried...		11,492		18,898		23,051
Total fresh or dried..		36,885		53,332		69,894
Preserved—						
Canned.....		56,648		62,858		75,541
Other.....		11,658		8,108		7,470
Total preserved.....		68,306		70,966		83,011
Total fruit.....		105,191		124,298		152,905
Grain and grain products:						
Bread and biscuit, pounds..	3,139,937	174,803	3,422,832	205,736	4,273,641	282,746
Corn meal.....barrels..	33,047	113,952	36,591	118,163	45,455	135,138
Oats.....bushels..	114,020	71,503	147,709	77,869	277,761	122,479
Wheat flour.....barrels..	297,576	1,553,029	325,734	1,819,724	347,680	1,779,248
Other.....		40,389		48,573		73,252
Total grain and grain products.....		1,953,676		2,270,065		2,392,863
Liquors, alcoholic:						
Distilled spirits, proof gallons.....	11,810	25,105	15,825	38,149	12,189	31,771
Malt liquors—						
Bottled.....doz. qts.	117,678	172,603	142,180	196,886	173,367	221,787
Unbottled.....gallons..	2,409	954	1,044	430	4,003	1,923
Total malt liquors...		173,557		197,316		223,710
Wines.....gallons..	107,604	59,185	140,540	59,306	193,008	69,534
Total alcoholic liquors...		257,847		294,771		325,015
Oil cake and oil-cake meal:						
Corn.....pounds..					550	10
Cotton seed.....do...	223,333	3,020	919,431	13,126	1,417,730	19,914
Flaxseed or linseed...do...	141,585	2,564	181,172	3,596	187,429	3,418
Total oil cake and oil-cake meal....pounds..	364,918	5,584	1,100,603	16,722	1,605,709	23,342
Oils, vegetable:						
Fixed or expressed—						
Cotton seed.....pounds..	201,870	14,822	329,712	25,796	470,704	36,001
Linseed.....gallons..	76,440	39,044	81,126	52,980	74,433	69,139
Other.....		19,472		13,881		5,550
Total fixed or expressed.....		73,338		92,657		110,690
Volatile or essential.....		6,036		7,397		7,582
Total vegetable oils.....		79,374		100,054		118,272
Rice.....pounds..	92,937,217	3,480,299	117,527,269	3,747,215	126,901,195	3,866,986
Starch.....do...	552,026	17,444	661,640	20,656	2,416,107	50,895

TABLE 14.—SHIPMENTS of domestic FARM and FOREST products from the United States to PORTO RICO, 1909-1911—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Sugar, molasses, and sirup:						
Molasses..... gallons..	90	\$26	6	\$2	349	\$95
Sirup..... do.....	1,633	479	2,368	734	4,928	1,421
Sugar, refined..... pounds..	8,413,191	408,653	8,551,283	438,545	11,853,322	600,038
Total sugar, molasses, and sirup.....		409,158		439,281		601,554
Tobacco:						
Leaf..... pounds..	1,165,950	469,032	1,453,250	324,942	2,024,380	349,598
Stems and trimmings, pounds.....			2,607	136		
Total tobacco..... pounds..	1,165,950	469,032	1,455,857	325,078	2,024,380	349,598
Vegetables:						
Fresh or dried—						
Beans and peas, bushels.....	144,396	330,764	169,692	473,846	185,630	546,129
Onions..... bushels..	22,092	23,498	17,854	18,392	27,133	30,509
Potatoes..... do.....	134,323	128,096	172,252	134,037	188,197	150,682
Total fresh or dried, bushels.....	300,811	482,358	359,798	626,275	400,960	727,320
Prepared or preserved—						
Canned.....		15,262		20,523		32,482
Other.....		10,996		14,736		16,121
Total prepared or preserved.....		26,258		35,259		48,603
Total vegetables.....		508,616		661,534		775,923
Other vegetable matter.....		31,014		31,826		27,560
Total vegetable matter.....		7,331,198		8,048,016		8,709,497
Total farm products.....		9,807,776		10,981,064		12,377,552
FOREST PRODUCTS.						
Naval stores:						
Rosin..... barrels..	118	564	233	1,149	81	521
Tar..... do.....	705	2,147				
Turpentine and pitch, barrels.....	228	766	632	2,079	606	2,171
Turpentine, spirits of, gallons.....	14,592	7,750	17,580	8,491	8,633	6,086
Total naval stores.....		11,227		11,719		8,778
Wood:						
Lumber—						
Boards, deals, and planks..... M feet..	20,983	411,332	30,399	613,503	49,850	996,712
Joists and scantling, M feet.....					38	836
Shingles..... M.....	553	2,378	61	348	1,945	7,805
Shooks—						
Box.....		92,311		141,982		164,843
Other..... number..	4,223	12,893	2,082	6,569	2,237	8,201
Total shooks.....		105,204		148,551		173,044
Heading.....		1,357		1,681		962
Other.....		43,811		30,946		85,800
Total lumber.....		564,082		795,029		1,265,159

TABLE 14.—SHIPMENTS of domestic **FARM** and **FOREST** products from the United States to **PORTO RICO**, 1909-1911—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS—continued.						
Wood—Continued.						
Timber—						
Logs and other round timber.....		\$3,263		\$30,142		\$14,244
Hewn.....cubic feet.....			21,644	7,792	26,717	11,221
Sawn.....M feet.....	3	175	615	17,220	304	7,503
Total timber.....		3,438		55,154		32,968
Total wood.....		567,520		850,183		1,298,127
Other forest products.....		2,614		3,271		1,674
Total forest products.....		581,361		865,173		1,308,579
Total farm and forest products.....		10,389,137		11,846,237		13,686,131

TABLE 15.—SHIPMENTS of domestic **FARM** and **FOREST** products from the United States to **TUTUILA**, 1909-1911.

Article.	Year ending June 30—		
	1909	1910	1911
FARM PRODUCTS.			
<i>Animal matter.</i>			
Dairy products.....	1 \$3,966	1 \$3,295	1 \$5,235
Packing-house products.....			
Total animal matter.....	3,966	3,295	5,235
<i>Vegetable matter.</i>			
Fruits and nuts.....	3,487	3,974	2,690
Grain and grain products.....	2,129	13,524	8,617
Liquors, alcoholic.....	58	380	242
Vegetables.....	5,547	2,933	1,317
Other vegetable matter.....	143	823	1,687
Total vegetable matter.....	11,364	21,634	14,553
Total farm products.....	15,330	24,929	19,788

¹ The items included in this total are not given separately.

TABLE 16.—Quantity and value of principal groups of **EXPORTS** of **FOREIGN FARM and FOREST** products, 1909-1911.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS.						
<i>Animal matter.</i>						
Animals, live.....		\$163,876		\$260,201		\$374,662
Fibers, animal:						
Silk..... pounds.....	123,251	410,529	102,988	338,353	121,828	388,399
Wool..... do.....	3,495,599	598,252	4,007,953	859,190	8,205,099	1,847,326
Total..... do.....	3,618,850	1,008,781	4,110,941	1,197,543	8,327,527	2,235,725
Packing-house products:						
Hides and skins, ¹ other than furs..... pounds.....	4,750,273	1,006,737	7,310,207	1,525,062	11,347,055	2,184,994
Meat ² do.....		32,856				
Other packing-house products.....		102,020		153,012		183,466
Total.....		1,141,613		1,678,074		2,368,460
Other animal matter.....		59,568		93,565		103,153
Total animal matter.....		2,373,838		3,220,383		5,082,000
<i>Vegetable matter.</i>						
Cocoa and chocolate..... pounds.....	2,891,207	353,963	4,833,491	516,550	4,431,587	488,351
Coffee..... do.....	13,277,543	1,145,229	11,416,167	1,136,161	5,876,895	635,334
Fibers, vegetable:						
Cotton..... pounds.....	1,515,871	204,120	5,531,879	1,299,245	2,332,679	452,938
Hemp..... long tons.....	596	96,127	413	58,590	133	19,271
Istle or tampico fiber..... do.....	411	39,607	515	43,359	279	27,028
Manila..... do.....	3,052	485,783	8,724	1,345,490	5,742	918,978
Sisal grass..... do.....	2,116	262,005	978	127,569	4,185	436,798
Other..... do.....	402	42,103	725	89,065	813	127,805
Total.....		1,129,835		2,963,318		1,982,818
Fruits:						
Fresh or dried—						
Bananas..... bunches.....	1,209,522	1,314,416	1,300,463	1,408,207	1,860,988	2,088,206
Currants..... pounds.....	316,309	13,943	666,578	34,644	995,558	62,344
Dates..... do.....	2,284,302	56,657	2,513,315	61,131	4,532,432	120,495
Raisins..... do.....	651,970	28,806	620,420	21,712	73,833	5,058
Other.....		210,227		246,280		267,979
Total fresh or dried.....		1,624,049		1,771,974		2,544,082
Prepared or preserved.....		9,966		25,129		6,217
Total fruits.....		1,634,015		1,797,103		2,550,299
Grain and grain products:						
Grain—						
Oats..... bushels.....	105,407	43,407	218,289	89,529	1,504	645
Wheat..... do.....	3,772	3,325	136,519	122,173	1,361	1,235
Other..... do.....	29,960	19,700				
Total grain..... do.....	139,139	66,432	354,808	211,702	2,865	1,880
Grain products—						
Wheat flour..... barrels.....			31	250	8	46
Other.....		15,631		31,769		28,009
Total grain products.....		15,631		32,019		28,655
Total grain and grain products.....		82,063		243,721		30,535
Liquors, alcoholic:						
Wines..... doz. qts.....	10,549	86,809	6,522	54,554	7,352	37,225
Other.....		39,359		34,425		56,244
Total alcoholic liquors.....		126,168		88,979		93,469

¹ Excluding sheepskins with wool on, bird skins and fish skins.² Including meat extracts.

TABLE 16.—Quantity and value of principal groups of **EXPORTS of FOREIGN FARM and FOREST** products, 1909-1911—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Nuts.....		\$99,663		\$202,320		\$248,936
Oils, vegetable.....		129,972		188,099		289,011
Opium, crude..... pounds..	26,571	91,785	347	1,345	8	48
Rice, rice meal, etc.:						
Rice..... do.....	6,854,067	146,990	8,149,982	173,012	6,166,136	139,348
Rice flour, rice meal, and broken rice..... pounds..	486,237	8,822	10,470	286	26,443	643
Total..... do.....	7,340,304	155,812	8,160,452	173,298	6,192,579	139,991
Seeds.....		96,742		70,254		91,056
Spices:						
Pepper..... pounds.....	731,168	55,203	852,765	64,625	757,335	66,593
Other..... do.....	1,871,199	153,453	1,704,871	154,654	2,017,784	179,029
Total..... do.....	2,602,367	208,656	2,617,636	219,279	2,775,119	245,622
Sugar:						
Raw, cane ¹ do.....	2,484,493	57,950	47,764,578	1,097,970	16,837,133	424,919
Refined ² do.....	114,736	3,164	1,360,086	44,149	189,591	5,791
Total sugar..... do.....	2,599,229	61,114	49,124,664	1,142,119	17,026,724	430,710
Tea..... do.....	759,083	128,519	2,328,351	323,084	3,287,366	447,304
Tobacco:						
Wrapper..... do.....	903,306	833,859	984,231	888,038	803,223	658,794
Filler and other leaf ³ do.....	1,473,508	581,817	1,742,737	629,979	1,243,674	517,356
Total..... do.....	2,376,814	1,415,676	2,726,968	1,518,017	2,046,897	1,176,150
Vanilla beans..... do.....	215,478	139,735	331,889	285,766	410,844	409,696
Vegetables:						
Fresh or dried—						
Beans..... bushels.....	456,072	94,414	65,367	104,260	18,497	35,397
Other.....		53,631		164,606		178,785
Total fresh or dried.....		148,045		268,866		214,182
Prepared or preserved.....		29,001		35,812		46,661
Total vegetables.....		177,046		304,678		260,843
Other vegetable matter.....		35,103		66,153		62,375
Total vegetable matter.....		7,211,096		11,240,244		9,582,548
Total farm products.....		9,584,934		14,469,627		14,664,548
FOREST PRODUCTS.						
Gums:						
Arabic..... pounds.....	216,645	17,072	226,070	18,373		
Chicle..... do.....	1,747,562	429,119	1,721,532	565,342	852,282	275,438
Copal, kauri, and damar, pounds.....	772,952	97,337	1,300,246	165,022	1,123,032	136,956
Gambier or terra japonica, pounds.....	785,236	44,563	703,964	41,629	551,410	33,509

¹ Not above No. 16 Dutch standard in color.² Including raw sugar above No. 16 Dutch standard in color, and maple sugar and sirup.³ Including stems.⁴ Including dried peas.

TABLE 16.—Quantity and value of principal groups of **EXPORTS** of **FOREIGN FARM and FOREST** products, 1909-1911—Continued.

Article.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS—continued.						
Gums—Continued.						
India rubber, gutta-percha, etc.—						
Balata.....pounds..	518,098	\$223,207	73,553	\$42,750	264,589	\$230,575
Guayule gum.....do....	(¹)	(¹)	(¹)	(¹)	340,405	175,995
Gutta-joolatong.....do....			2,139	112		
Gutta-percha.....do....	9,320	3,730	74,137	13,886	62,391	19,235
India rubber.....do....	3,791,971	2,964,496	6,492,947	7,629,380	5,267,589	5,439,282
Total india rubber, etc., pounds.....	4,319,389	3,191,433	6,642,776	7,686,128	5,934,974	5,865,087
Shellac.....pounds..	332,410	95,111	431,749	84,463	437,726	86,398
Other.....		68,567		77,108		100,377
Total gums.....		3,943,202		8,638,065		6,497,765
Wood:						
Cabinet woods, unsawed—						
Mahogany.....M feet..	1,392	112,843	1,467	128,342	1,759	170,130
Other.....		65,509		65,267		126,773
Total cabinet woods.....		178,352		193,609		296,903
Lumber—						
Boards, deals, planks, and other sawed lumber.....M feet..	23,711	582,974	23,320	567,406	15,143	370,726
Other.....		763		5,778		3,661
Total lumber.....		583,737		573,184		374,387
All other.....		37,103		61,181		44,220
Total wood.....		799,192		827,974		715,510
Other forest products.....		240,416		335,842		373,579
Total forest products.....		4,982,810		9,801,881		7,586,854
Total farm and forest products.....		14,567,744		24,271,508		22,251,402

¹ Included in "india rubber."

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS.						
<i>Animal matter.</i>						
Animals, live:						
Cattle—	<i>Number.</i>	<i>Dollars.</i>	<i>Number.</i>	<i>Dollars.</i>	<i>Number.</i>	<i>Dollars.</i>
Belgium.....	1,968	191,520	270	27,000	2,332	233,200
Bermuda.....	807	70,163	761	62,022	1,111	88,486
Brazil.....	132	10,715	37	5,061	87	8,215
British South Africa.....	14	1,870	7	900	9	2,500
Canada.....	8,103	209,914	10,283	323,274	7,890	257,934
Cuba.....	2,196	40,349	207	8,642	328	12,330
Mexico.....	8,372	381,481	5,149	253,160	6,513	306,615
United Kingdom—						
England.....	182,946	16,879,589	122,139	11,479,129	129,392	12,035,715
Scotland.....	2,357	214,626			1,881	176,195
Other countries.....	647	46,749	577	40,966	557	42,730
Total.....	207,542	18,046,976	139,430	12,200,154	150,100	13,163,920
Fowls—						
Canada.....		40,927		72,319		
Cuba.....		6,786		5,357		
Mexico.....		29,828		17,845		(1)
Panama.....		21,503		22,582		
Other countries.....		16,902		19,516		
Total.....		115,946		137,619		(1)
Horses—						
Argentina.....	184	133,000	57	76,500	214	174,000
Belgium.....	23	7,300	22	6,850	38	55,050
Bermuda.....	78	11,958	106	15,730	105	18,486
British West Indies—						
Barbados.....					39	7,716
Jamaica.....					4	775
Trinidad and Tobago.....					34	7,555
Other.....	112	24,197	87	15,621	20	3,705
Canada.....	17,276	2,221,562	24,518	3,216,318	21,743	2,870,235
Cuba.....	760	103,503	1,874	181,195	308	44,235
Germany.....	81	73,450	39	8,430	81	57,100
Japan.....	13	3,475	10	1,000	2	200
Mexico.....	1,619	171,952	1,560	290,200	1,615	206,270
United Kingdom—						
England.....	1,259	557,987	487	226,554	563	275,620
Scotland.....	8	1,400	3	3,000		
Venezuela.....	1	600	34	11,189	37	15,714
Other countries.....	202	76,233	113	28,570	342	108,592
Total.....	21,616	3,386,617	28,910	4,081,157	25,145	3,845,253
Mules—						
British Guiana.....	174	30,524	165	28,422	142	26,926
British South Africa.....			205	31,045	716	165,230
British West Indies—						
Barbados.....					116	19,089
Jamaica.....					195	33,845
Trinidad and Tobago.....					39	7,990
Other British.....	430	70,857	514	84,921		
Canada.....	1,257	155,880	1,924	233,183	2,161	281,182
Cuba.....	764	109,240	903	118,448	1,366	209,330
French West Indies.....	149	24,800	115	19,582	161	27,978
Mexico.....	516	56,253	536	71,198	477	54,791
Other countries.....	142	24,463	150	27,295	1,212	243,660
Total.....	3,432	472,017	4,512	614,094	6,585	1,070,051
Sheep—						
Bermuda.....	1,436	11,386	942	8,437	1,384	9,574
British South Africa.....	181	13,295	217	18,195	139	6,617
Canada.....	43,803	153,660	36,531	133,294	78,293	291,003
Mexico.....	2,830	39,734	5,195	35,420	2,097	19,048
United Kingdom—						
England.....	18,493	132,860	848	5,314	35,228	269,414
Scotland.....					1,810	13,116
Other countries.....	913	9,220	784	8,340	2,540	27,500
Total.....	67,656	365,155	44,517	209,000	121,491	636,272

¹ Included in "Other live animals."

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued,						
<i>Animal matter—Continued.</i>						
Animals, live—Continued.						
Swine—	<i>Number.</i>	<i>Dollars.</i>	<i>Number.</i>	<i>Dollars.</i>	<i>Number.</i>	<i>Dollars.</i>
Canada.....	120	1,763	123	2,073	87	1,476
Cuba.....	15,842	101,882	3,168	33,024	8,023	65,213
Mexico.....	2,539	37,397	987	9,531	334	4,939
Other countries.....	154	3,563	132	2,327	107	2,404
Total.....	18,655	144,605	4,410	46,955	8,551	74,032
Other live animals—						
Canada.....		52,994		107,101		144,313
Cuba.....		9,894		5,043		12,511
Germany.....		5,549		6,269		7,908
Mexico.....		37,373		17,135		26,711
Other countries.....		8,312		23,208		67,682
Total.....		114,122		158,756		259,125
Total live animals—						
Argentina.....		134,207		80,950		181,167
Belgium.....		198,952		33,925		297,474
Bermuda.....		94,786		87,719		118,280
Brazil.....		19,539		18,999		21,105
British Guiana.....		37,063		32,064		31,721
British South Africa.....		15,611		50,713		180,083
British West Indies—						
Barbados.....						30,637
Jamaica.....						2,687
Trinidad and Tobago.....		104,997		108,616		46,424
Other British.....						16,399
Canada.....		2,841,700		4,087,562		3,846,143
Costa Rica.....		8,099		6,729		16,579
Cuba.....		372,107		351,756		344,263
French Guiana.....		1,110		1,120		1,045
French West Indies.....		25,640		20,296		29,222
Germany.....		80,120		16,899		65,108
Guatemala.....		4,191		1,942		21,686
Japan.....		19,001		1,968		12,930
Mexico.....		754,018		694,489		618,374
Panama.....		43,322		58,471		31,783
Santo Domingo.....		5,213		914		2,388
United Kingdom—						
England.....		17,580,240		11,723,364		12,597,253
Scotland.....		216,076		3,070		189,457
Ireland.....		10				60
Venezuela.....		1,710		11,597		18,316
Other countries.....		87,726		54,572		328,069
Total.....		22,645,438		17,447,735		19,048,653
Beeswax:	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Canada.....	22,975	7,440	27,147	9,802	59,279	19,380
United Kingdom—						
England.....	30,203	8,911	38,577	11,744	36,145	10,002
Scotland.....	2,790	776	2,600	740	770	220
Other countries.....	21,579	6,166	21,566	5,454	5,541	1,802
Total.....	77,547	23,293	89,890	27,740	101,735	31,404
Dairy products:						
Butter—						
Bermuda.....	107,594	29,393	27,687	8,923	74,870	18,755
Brazil.....	63,160	10,911	5,434	1,204	278	61
British Honduras.....	69,894	18,178	52,944	15,578	41,371	11,707
British West Indies—						
Barbados.....						16,611
Jamaica.....						98,449
Trinidad and Tobago.....						106,141
Other British.....						92,588
Canada.....	180,791	42,813	202,040	57,384	560,469	120,494
Colombia.....	30,719	7,182	25,280	5,750	39,190	6,151

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
<i>Dairy products—Continued.</i>						
Butter—Continued.	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Cuba.....	264,346	64,089	300,370	79,658	328,734	78,604
French Guiana.....	116,432	24,628	90,780	20,039	69,317	14,844
French West Indies.....	239,031	34,991	241,400	55,331	358,100	79,525
Haiti.....	191,595	37,772	254,209	51,222	371,640	70,985
Honduras.....	43,614	12,050	32,401	9,347	43,979	12,563
Japan.....	9,353	2,420	1,028	354		
Mexico.....	554,298	135,481	492,582	122,830	427,471	104,295
Newfoundland and Labrador.....	25,614	6,349	140	36	3,903	795
Nicaragua.....	42,320	11,492	40,434	12,273	67,577	18,337
Panama.....	451,748	127,173	488,423	161,997	510,764	146,235
Santo Domingo.....	65,259	12,021	80,060	15,748	78,989	15,454
United Kingdom—						
England.....	2,612,146	508,757	1,998	495	823,934	153,337
Scotland.....	60,617	11,564			5,974	1,274
Venezuela.....	395,843	68,444	458,222	81,741	653,953	109,386
Other countries.....	104,704	25,547	74,153	20,204	112,495	25,626
Total.....	5,981,265	1,268,210	3,140,545	785,771	4,877,797	1,059,432
Cheese—						
Bermuda.....	30,491	4,737	12,503	1,953	34,399	4,615
British Honduras.....	73,554	11,618	64,077	10,869	75,447	12,538
British West Indies—						
Barbados.....					1,890	319
Jamaica.....					148,965	25,469
Trinidad and Tobago.....	414,442	67,241	361,116	60,668	165,939	27,204
Other British.....					74,965	12,396
Canada.....	120,844	19,362	85,415	15,435	996,718	113,757
China.....	81,148	12,420	69,427	12,031	54,437	9,310
Colombia.....	4,989	833	4,235	692	4,764	854
Cuba.....	101,507	19,952	166,436	30,957	167,509	31,081
Hongkong.....	109,530	17,006	94,259	17,022	78,208	12,984
Mexico.....	318,288	47,203	362,035	59,868	297,932	48,037
Panama.....	315,718	49,097	334,183	56,062	429,177	68,757
United Kingdom—						
England.....	4,916,680	558,248	990,123	123,433	7,395,362	857,115
Scotland.....	135,593	17,269			154,307	16,324
Other countries.....	200,058	32,105	302,900	52,027	286,586	47,519
Total.....	6,822,842	857,091	2,846,709	441,017	10,366,605	1,288,279
Milk—						
Brazil.....		4,295	112,424	7,995	201,335	13,554
British India.....	(1)	1,471	26,307	1,690	33,709	2,162
British South Africa.....		61,500	14,482	1,086	61,030	3,803
British West Indies—						
Barbados.....					1,545	127
Jamaica.....	(1)	9,281	93,978	7,640	15,298	1,278
Trinidad and Tobago.....					3,100	225
Other British.....					81,164	6,584
Canada.....		55,153	187,442	13,411	223,402	18,202
China.....		57,294	329,125	23,734	368,691	27,354
Cuba.....		675,301	6,882,648	523,283	4,257,387	323,833
Hongkong.....		22,343	14,685	1,218	67,801	5,435
Japan.....		71,749	73,567	5,397	103,827	7,865
Korea.....		4,223	27,399	2,436	30,738	2,680
Mexico.....		71,900	873,426	71,420	924,444	76,565
Nicaragua.....		6,862	100,834	8,186	125,863	10,061
Panama.....		98,287	1,175,136	86,859	1,256,526	96,963
Philippine Islands.....	(1)	124,790	1,998,829	163,785	3,056,286	235,681
Portuguese Africa.....		1,707	41,422	3,305	5,380	410
Russia, Asiatic.....		44,603	481,294	31,294	742,105	55,156
Straits Settlement.....		4,717	30,740	2,180	23,845	1,472
United Kingdom—						
England.....		8,257	81,000	7,381	716	72
Scotland.....		1,109				
Other countries.....		50,262	766,580	61,333	596,193	46,623
Total.....	(1)	1,375,104	13,311,318	1,023,633	12,180,445	936,105

1 Not stated.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Dairy products—Continued.						
Total dairy products—		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
Bermuda.....		36,930		12,158		25,243
Brazil.....		15,212		9,433		13,620
British India.....		1,486		1,734		2,162
British Honduras.....		36,529		36,482		30,427
British South Africa.....		61,625		1,436		3,803
British West Indies—						
Barbados.....						4,095
Jamaica.....						51,024
Trinidad and Tobago.....						47,335
Other British.....		153,477		133,965		42,152
Canada.....		117,328		86,230		252,453
China.....		70,236		36,016		36,918
Colombia.....		9,820		8,366		9,405
Costa Rica.....		11,001		13,974		11,124
Cuba.....		759,342		633,898		433,518
Danish West Indies.....		7,506		7,742		7,785
French Guinea.....		24,628		20,039		14,844
French West Indies.....		35,603		55,468		79,645
Germany.....		530		502		15
Haiti.....		42,256		57,674		79,156
Honduras.....		23,798		19,437		25,888
Hongkong.....		39,392		18,240		18,419
Japan.....		77,201		7,996		9,280
Korea.....		7,324		3,481		3,063
Mexico.....		254,584		254,118		228,897
Newfoundland and Labrador.....		7,239		898		2,211
Nicaragua.....		21,077		24,093		33,753
Panama.....		274,557		304,918		311,955
Philippine Islands.....		127,960		164,918		241,038
Portuguese Africa.....		1,707		3,305		737
Russia, Asiatic.....		45,447		32,699		55,765
Santo Domingo.....		15,437		22,318		22,303
Straits Settlements.....		4,717		2,180		1,472
United Kingdom—						
England.....		1,075,262		131,309		1,010,524
Scotland.....		29,942				17,598
Venezuela.....		69,991		82,376		110,081
Other countries.....		41,261		63,018		46,108
Total.....		3,500,405		2,250,421		3,283,816
Eggs:						
	<i>Dozens.</i>	<i>Dollars.</i>	<i>Dozens.</i>	<i>Dollars.</i>	<i>Dozens.</i>	<i>Dollars.</i>
Bermuda.....	24,335	7,189	30,715	9,353	40,894	11,486
Canada.....	866,609	211,644	868,454	202,344	2,457,188	474,350
Cuba.....	3,055,706	660,742	3,220,037	750,135	4,499,211	948,443
Mexico.....	631,194	171,947	585,540	162,430	668,022	158,496
Panama.....	591,374	138,218	591,673	127,940	848,667	181,942
United Kingdom—						
England.....	6,900	2,112	140	50	180	45
Scotland.....	285	56	770	228	2,150	470
Other countries.....	30,658	7,614	28,607	8,006	42,400	11,787
Total.....	5,207,151	1,199,522	5,325,936	1,260,486	8,558,712	1,787,019
Egg yolks.						
		23,938		3,585		5,353
Feathers:						
Canada.....		54,207		71,890		114,539
Denmark.....		68,634		39,152		20,017
France.....		120,510		47,000		38,071
Germany.....		35,586		25,573		4,856
Italy.....		44,650		51,607		10,119
Netherlands.....		25,041		26,781		18,340
United Kingdom—						
England.....		25,183		13,967		5,960
Other countries.....		26,234		36,814		39,004
Total.....		400,045		312,784		250,906

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Fibers, animal:						
Silk waste—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Belgium.....	144,573	36,748	60,003	12,063	2,385	820
France.....	64,191	17,084	75,013	19,292	36,274	10,748
Germany.....	36,423	8,450	69,391	13,620	57,491	11,643
Other countries.....	55,366	15,662	61,800	19,553	23,651	7,652
Total.....	300,553	77,944	266,207	64,528	119,801	30,863
Wool, raw—						
Canada.....	780	253	14,897	1,421		
United Kingdom—					(1)	(1)
England.....	27,596	4,415	32,623	8,656		
Total.....	28,376	4,668	47,520	10,077	(1)	(1)
Glue:						
Canada.....	367,543	39,675	328,027	36,547	252,083	25,514
Cuba.....	80,912	8,723	107,997	11,459	94,432	10,773
France.....	73,204	9,193	129,698	15,794	155,930	17,916
Germany.....	388,507	47,288	532,064	62,656	639,148	71,623
Mexico.....	183,810	19,697	118,785	11,779	36,520	4,781
United Kingdom—						
England.....	593,806	56,066	574,577	56,063	831,555	77,910
Scotland.....	387,497	36,506	396,206	36,869	11,414	959
Ireland.....	97,470	9,542	43,467	3,743	27,617	2,635
Other countries.....	167,677	18,061	257,384	26,846	259,267	30,644
Total.....	2,340,426	244,751	2,488,205	261,756	2,307,966	242,755
Honey:						
Belgium.....		4,087		1,471		
Canada.....		14,928		20,551		20,275
Germany.....		15,735		59,746		38,769
Netherlands.....		2,192		3,429		5,232
United Kingdom—						
England.....		38,861		57,572		8,267
Scotland.....		2,452		1,845		483
Other countries.....		7,323		14,787		8,623
Total.....		85,578		159,401		81,649
Packing-house products:						
Beef—						
Canned—						
Austria-Hungary.....	12,889	1,289			280	28
Belgium.....	363,816	40,020	405,812	45,909	282,637	31,292
Bermuda.....	65,283	8,252	59,770	7,868	62,568	10,323
Brazil.....	20,482	2,265	29,869	3,286	136,343	16,709
British India.....	12,370	1,372	9,733	1,206	21,485	2,788
British Honduras.....	99,082	9,722	122,707	12,885	132,635	14,448
British South Africa.....	1,010,228	119,703	740,250	91,917	862,569	102,344
British West Africa.....	37,112	3,823	40,314	4,259	1,524	186
British West Indies—						
Barbados.....					33,814	4,562
Jamaica.....					49,408	6,382
Trinidad and Tobago.....					45,213	5,655
Other British.....					113,375	14,583
Canada.....	77,233	10,775	204,763	24,024	40,884	6,795
China.....	28,627	3,024	6,169	790	20,878	2,167
Cuba.....	261,540	34,856	97,401	12,230	282,744	33,627
Denmark.....	47,830	4,829	30,871	3,400	1,350	145
France.....	398,881	40,470	225,889	22,417	78,096	8,278
Germany.....	497,280	50,530	83,022	8,677	17,548	2,203
Hongkong.....	24,090	2,831	16,221	2,258	7,497	884
Italy.....	77,755	8,247	22,312	2,414	9,560	1,162
Japan.....	10,304	1,315	11,591	1,359	5,638	758
Mexico.....	80,080	8,636	98,144	11,387	103,470	13,239
Netherlands.....	418,057	42,425	298,489	30,645	210,346	22,047

1 Not stated.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Packing-house products—Con.						
Beef—Continued.						
Canned—Continued.						
Newfoundland and Labrador.....	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Norway.....	58,974	6,219	135,514	15,166	117,617	13,267
Panama.....	45,753	4,710	34,237	3,576	7,300	870
Philippine Islands.....	331,836	33,778	375,461	40,119	367,476	42,224
Portuguese Africa.....	365,538	40,202	540,422	67,710	200,007	24,340
Russia, European.....	448,742	50,874	664,025	71,308	304,492	35,186
Straits Settlements.....	5,201	520	1,665	165		
Sweden.....	68,137	8,873	54,869	6,519	31,336	3,979
United Kingdom—	48,460	4,804	20,600	2,140		
England.....	8,388,591	925,934	8,224,644	934,296	5,360,947	618,405
Scotland.....	800,402	86,047	1,065,521	115,436	929,963	99,421
Ireland.....	112,260	12,618	9,360	1,181	1,440	180
Other countries.....	501,438	54,751	916,561	100,834	984,064	116,472
Total.....	14,895,527	1,645,822	14,804,596	1,678,452	10,824,504	1,254,979
Cured—						
Salted or pickled—						
Australia, Commonwealth of.....	134,800	9,536	91,095	7,548	29,900	2,481
Belgium.....	2,245,255	175,256	1,969,027	158,426	1,842,617	153,038
Bermuda.....	192,900	16,522	238,251	19,975	211,416	20,578
British East Africa.....	94,110	7,293	104,295	7,186	76,340	5,785
British Guiana.....	1,352,402	104,411	1,045,450	79,856	1,491,734	131,049
British Honduras.....	170,115	13,212	260,401	24,941	287,192	30,669
British South Africa.....	44,600	3,379	81,696	5,995	113,150	9,048
British West Africa.....	326,061	25,321	269,354	18,272	237,255	17,437
Barbados.....					1,121,300	93,607
Jamaica.....					1,036,750	89,735
Trinidad and Tobago.....	3,781,559	293,238	2,702,872	219,287	1,006,100	92,195
Other British.....					567,247	48,137
Canada.....	2,328,584	158,765	1,316,873	89,580	1,818,246	139,697
Colombia.....	168,090	13,308	14,923	1,117	34,367	3,213
Costa Rica.....	511,145	40,204	374,824	33,717	521,051	56,686
Denmark.....	633,600	39,973	502,303	34,900	494,955	38,907
Dutch Guiana.....	1,755,168	139,208	1,404,630	110,740	1,713,955	148,999
Dutch West Indies.....	150,521	11,997	119,922	9,736	165,550	14,056
France.....	157,800	12,471	173,993	14,602	171,134	15,284
French Guiana.....	752,400	60,238	435,475	32,853	647,300	58,209
French West Indies.....	328,200	23,225	267,885	18,318	367,457	29,952
Germany.....	5,126,646	381,815	4,053,124	289,438	4,581,262	385,665
Haiti.....	229,345	18,779	349,591	27,008	525,469	47,660
Japan.....	9,000	496	23,500	1,300	18,000	1,450
Netherlands.....	813,233	59,008	629,231	45,967	792,713	64,909
Newfoundland and Labrador.....	4,669,300	326,580	5,068,333	347,922	5,820,850	461,898
Nicaragua.....	134,033	10,429	92,051	8,928	58,222	6,230
Norway.....	1,503,217	114,413	1,251,048	91,482	1,810,634	144,055
Panama.....	845,080	69,911	1,676,327	148,029	1,099,062	107,350
Portugal.....	239,340	17,554	146,290	9,990	131,662	10,336
Russia, Asiatic.....	201,844	15,236	239,200	16,120	6,600	596
Russia, European.....	119,560	9,821	83,232	5,560	17,200	1,376
Sweden.....	217,372	16,402	104,000	6,950	153,855	11,986
United Kingdom—						
England.....	10,803,076	880,160	7,925,860	590,365	8,230,259	783,531
Scotland.....	2,780,758	226,009	2,531,213	187,166	2,032,848	181,190
Ireland.....	8,100	622				
Other countries.....	1,666,996	143,256	1,007,997	81,612	1,050,097	94,185
Total.....	44,404,210	3,438,048	36,554,266	2,744,886	40,283,749	3,501,179
Other cured—						
Belgium.....	156,980	17,337	171,040	19,190	(1)	(1)
Other countries.....	137,873	16,982	146,007	19,625		
Total.....	294,853	34,319	317,047	38,815	(1)	(1)

1 Included in "Salted or pickled"

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Packing-house products—Con.						
Beef—Continued.						
Fresh—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Bermuda.....	555,627	55,694	393,623	41,488	561,483	54,889
British West Indies—						
Barbados.....					5,933	1,002
Jamaica.....	235,474	24,512	171,247	18,837	119,783	13,176
Trinidad and Tobago..					247,598	25,777
Other British.....					42,058	4,904
Canada.....	190,989	20,278	136,389	13,148	4,221,393	374,593
Cuba.....	1,073,580	94,096	95,197	10,271		
Panama.....	4,876,836	425,297	4,041,542	354,886		
United Kingdom—						
England.....	114,237,389	11,952,471	69,961,689	7,211,776	37,161,536	3,990,136
Scotland.....	1,546,167	107,712	833,550	76,707	96,147	8,327
Other countries.....	236,609	18,534	96,429	6,638	54,800	5,897
Total.....	122,952,671	12,698,594	75,729,666	7,733,751	42,510,731	4,478,401
Oils—Oleo oil L—						
Austria-Hungary.....	133,000	13,300	9,500	957	298,657	29,868
Belgium.....	1,006,245	99,940	720,224	77,041	1,740,925	181,244
Canada.....	83,616	9,219				
Denmark.....	12,402,401	1,419,644	6,883,607	818,126	7,544,755	730,301
Germany.....	40,404,633	4,219,425	29,792,155	3,433,843	28,571,311	2,847,346
Italy.....	1,036,959	97,914	594,764	56,845	766,261	72,244
Netherlands.....	71,194,178	7,609,208	47,115,136	5,526,385	67,690,748	6,610,716
Newfoundland and Labrador.....	2,186,765	268,254	2,526,391	289,916	1,532,214	154,224
Norway.....	9,381,992	920,234	9,884,061	1,028,058	10,445,402	1,068,335
Russia, European.....	97,598	9,316			57,149	5,700
Sweden.....	2,699,727	264,963	2,178,190	232,526	2,139,689	221,256
Turkey, Asiatic.....	856,080	78,245	1,027,185	95,199	2,079,364	187,121
Turkey, European.....	2,734,826	251,036	3,123,725	281,383	5,718,352	517,806
United Kingdom—						
England.....	33,651,973	3,631,054	20,020,478	2,227,382	8,077,881	826,755
Scotland.....	1,360,217	154,930	1,014,663	115,239	1,158,743	116,444
Ireland.....	28,501	3,360	111,975	14,537	18,586	1,643
Other countries.....	726,535	76,699	1,089,621	107,643	856,869	87,759
Total.....	179,985,246	19,126,741	126,091,675	14,305,080	138,696,906	13,658,762
Oleomargarine (imitation butter)—						
British Guiana.....	44,200	4,650	69,070	7,215	107,200	11,424
British West Indies—						
Barbados.....					296,310	33,223
Jamaica.....	1,080,405	104,682	1,287,935	125,132	397,489	41,616
Trinidad and Tobago..					189,933	20,231
Other British.....					523,343	54,982
Costa Rica.....	85,745	8,506	109,862	11,664	124,868	13,295
Cuba.....	225,044	23,905	310,698	32,910	253,874	27,896
Danish West Indies.....	108,415	10,747	126,605	12,880	134,460	14,056
French West Indies.....	113,460	11,718	133,200	13,885	118,985	12,839
Haiti.....	412,406	42,612	490,279	49,283	555,717	59,982
Mexico.....	164,487	20,926	180,423	22,583	65,839	9,268
Panama.....	388,534	37,712	338,256	33,913	536,682	53,351
Santo Domingo.....	56,958	5,792	97,916	10,317	131,878	13,899
Other countries.....	209,404	22,385	274,387	30,190	358,361	42,397
Total.....	2,889,058	293,635	3,418,632	349,972	3,794,939	408,459
Tallow—						
Austria-Hungary.....	156,665	9,030			144,307	9,298
Belgium.....	3,771,057	196,682	1,998,942	112,285	2,252,714	148,084
Brazil.....	1,803	128	29,065	2,414	29,130	2,293
Chile.....	173,236	9,473	161,661	9,130	80,952	5,367
Colombia.....	147,592	10,861	66,442	5,290	109,578	7,954
Costa Rica.....	303,679	19,199	349,844	20,369	339,915	24,509
Cuba.....	1,522,822	79,589	845,630	50,338	969,377	56,182

¹ Prior to July 1, 1910, including "Neutral lard."

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Packing-house products—Con.						
Beef—Continued.						
Tallow—Continued.	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Denmark.....	581,903	28,069	15,597	1,480		
France.....	5,597,734	300,592	3,615,679	198,263	4,528,849	264,858
Germany.....	2,192,884	125,234	1,916,550	117,258	2,238,988	146,232
Guatemala.....	770,282	47,000	614,042	41,362	397,405	28,961
Haiti.....	175,310	11,514	210,823	15,093	193,633	15,657
Italy.....	2,540,310	147,227	653,008	35,057	1,757,167	118,288
Mexico.....	1,061,423	57,530	1,140,615	71,970	656,348	46,426
Netherlands.....	1,946,564	112,159	3,368,078	244,096	2,957,759	212,325
Nicaragua.....	296,338	18,219	194,611	12,054	263,776	17,491
Peru.....	280,538	15,880	394,164	24,702	188,127	13,477
Russia, European.....	586,257	32,190	430,511	27,934	689,974	43,398
Santo Domingo.....	613,788	34,232	822,669	47,639	477,568	29,067
Sweden.....	101,153	6,655				
Turkey, European.....	180,173	11,844	102,551	6,839	94,047	8,037
United Kingdom—						
England.....	28,361,816	1,611,744	11,787,412	688,931	10,894,967	696,509
Scotland.....	155,128	10,081			51,092	3,850
Ireland.....	46,450	1,900			2,125	149
Other countries.....	1,767,892	103,334	662,098	47,111	495,356	35,269
Total.....	53,332,767	3,000,366	29,379,992	1,779,615	29,813,154	1,933,681
Bones, hoofs, horns and horn tips, strips, and waste—						
Belgium.....		56,045		12,384		36,105
Canada.....		33,087		16,530		4,315
France.....		28,518		15,913		5,404
Italy.....		29,789		24,896		11,498
Japan.....		19,610		17,154		26,110
United Kingdom—						
England.....		45,994		46,117		36,840
Scotland.....		50				
Other countries.....		19,535		17,377		31,895
Total.....		232,628		150,371		152,167
Grease, grease scraps, and all soap stock—						
Argentina.....		44,391		66,583		65,280
Australia, Commonwealth of.....		74,006		77,013		106,603
Austria-Hungary.....		37,121		38,249		23,959
Belgium.....		353,159		384,245		286,129
Brazil.....		24,925		27,186		23,899
British India.....		11,049		15,657		36,592
British South Africa.....		37,332		31,313		43,926
British West Indies—						
Barbados.....						2,935
Jamaica.....						6,124
Trinidad and Tobago.....		9,817		13,598		6,527
Other British.....						3,059
Canada.....		865,576		846,036		1,064,354
Chile.....		47,873		54,326		56,365
Cuba.....		273,685		368,728		495,343
France.....		269,268		181,941		169,147
Germany.....		277,174		243,844		288,735
Italy.....		581,728		406,755		633,295
Japan.....		26,226		74,243		43,734
Mexico.....		68,532		83,413		94,455
Netherlands.....		153,863		379,923		188,877
New Zealand.....		12,459		18,110		20,991
Norway.....		8,293		2,674		2,105
Peru.....		10,904		23,514		17,746
Philippine Islands.....		8,585		11,600		18,790
Portuguese Africa.....		30,197		51,446		63,124
Russia, European.....		19,725		47,594		66,204
Spain.....		17,972		35,063		10,295

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Packing-house products—Con. Grease, etc.—Continued.						
United Kingdom—		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
England.....		1,371,220		934,771		1,195,633
Scotland.....		48,235		53,018		36,911
Ireland.....		23,370		22,388		3,420
Other countries.....		108,213		119,195		103,024
Total.....		4,814,901		4,612,426		5,177,581
Hair¹—						
Austria-Hungary.....		31,192		12,632		15,253
Belgium.....		90,543		103,036		92,803
Canada.....		103,316		191,235		197,283
Cuba.....		12,624		18,778		16,242
France.....		40,998		18,121		32,604
Germany.....		262,948		268,628		231,206
Netherlands.....		14,229		30,105		19,462
United Kingdom—						
England.....		229,976		288,505		338,348
Scotland.....		166,641		138,815		264,120
Ireland.....		2,354		8,148		36,598
Other countries.....		33,928		64,842		30,426
Total.....		988,749		1,142,845		1,274,345
Hides and skins other than furs—						
	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Austria-Hungary.....			13,230	1,660	4,701,193	501,034
Belgium.....	250,102	23,413	396,216	55,164	656,085	64,343
Canada.....	697,414	92,479	4,409,522	609,319	12,129,374	1,396,367
France.....	4,032,237	372,092	1,038,941	111,328	3,650,030	376,962
Germany.....	6,301,462	557,766	6,629,800	597,233	10,242,105	1,012,365
Italy.....	130,856	22,080	134,630	16,753	283,336	33,075
Japan.....	125,080	16,163	10,190	1,828	625,578	77,958
Mexico.....	85,215	11,767	80,262	15,484	79,115	12,227
Netherlands.....	808,450	129,582	1,477,583	281,266	8,870,036	960,657
Russia, European.....	67,155	6,690			690,962	65,466
United Kingdom—						
England.....	307,400	35,495	295,958	36,320	1,172,338	140,593
Scotland.....	39,715	2,190	19,644	1,296	1,087,635	114,705
Other countries.....	13,889	1,473	129,099	10,565	406,448	46,885
Total.....	12,858,975	1,271,190	14,635,075	1,738,216	44,594,235	4,802,637
Lard compounds²—						
Belgium.....	167,416	13,211	112,881	9,099	1,188	115
Bermuda.....	134,015	11,353	142,484	14,331	137,182	14,005
British Guiana.....	100,095	9,389	176,256	19,104	249,915	26,717
British Honduras.....	286,507	22,704	206,021	28,110	300,929	28,311
British India.....	22,260	1,782	70	11	22,000	2,000
British South Africa.....	770,562	71,582	585,598	61,773	1,092,730	109,231
British West Indies—						
Barbados.....					222,666	21,014
Jamaica.....					150,300	15,330
Trinidad and Tobago.....	2,296,383	192,781	2,581,425	245,025	1,776,098	181,339
Other British.....					728,895	72,000
Canada.....	796,014	64,651	1,643,406	164,807	2,178,633	203,899
Chile.....	511,273	41,011	1,365,342	133,537	1,324,098	125,442
Colombia.....	581,088	51,895	287,637	28,550	694,466	68,584
Costa Rica.....	245,414	20,158	578,173	55,448	313,083	31,077
Cuba.....	28,023,623	2,293,659	24,379,309	2,275,912	25,175,162	2,388,812
Danish West Indies.....	159,999	13,340	137,498	13,474	155,139	15,593
Dutch West Indies.....	163,534	14,229	152,609	15,080	160,488	18,071
Denmark.....	2,083,666	171,357	606,292	55,630	308,591	26,944
Ecuador.....	26,060	2,162	230,997	21,736	93,522	9,700
France.....	26,519	2,598	64,180	5,210	84,760	7,075
French West Indies.....	426,362	39,462	3,100	316	9,616	1,020
Germany.....	1,139,881	89,432	1,038,265	97,953	4,004,925	360,771

¹ Including manufactures of.² Including stearin, cottolene, and lardine.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Packing-house products—Con.						
Lard compounds—Contd.	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Haiti.....	621,703	59,090	1,264,981	132,986	1,762,416	199,655
Mexico.....	5,466,877	448,757	5,768,151	532,162	7,212,139	687,030
Netherlands.....	2,310,141	171,775	705,944	61,588	1,265,719	124,444
Nicaragua.....	366,489	28,645	419,649	39,737	297,619	28,481
Norway.....	1,232,292	101,451	910,311	78,288	1,083,665	107,011
Panama.....	1,008,135	79,637	1,397,485	133,409	1,565,321	154,853
Peru.....	347,989	29,755	1,290,870	115,145	466,961	46,071
Philippine Islands.....	436,855	35,950	159,850	15,451	311,633	29,963
Russia, European.....	985,891	80,938	912,892	80,178	434,622	39,981
Straits Settlements.....	609,562	48,755	219,981	19,770	326,488	28,544
United Kingdom—						
England.....	15,378,956	1,232,026	17,633,996	1,573,735	12,239,741	1,165,419
Scotland.....	6,874,607	543,648	8,335,960	751,365	6,029,536	581,375
Ireland.....	215,778	16,826	454,926	42,652	557,315	51,251
Other countries.....	1,367,250	111,298	700,058	66,166	1,016,839	100,039
Total.....	75,183,196	6,115,307	74,556,603	6,887,738	73,754,400	7,070,967
Meat, canned, other—						
Argentina.....		128		13,827		41,689
Australia, Commonwealth						
of.....		19,923		15,145		15,735
Belgium.....		8,373		185		720
British Honduras.....		9,452		5,207		7,503
British South Africa.....		25,220		37,207		43,218
British West Indies—						
Barbados.....						298
Jamaica.....						4,188
Trinidad and Tobago.....		24,740		11,297		4,285
Other British.....						3,603
Canada.....		33,772		35,740		100,519
China.....		4,104		9,627		8,918
Colombia.....		1,594		1,990		2,084
Cuba.....		28,174		15,132		17,603
France.....		971		4,025		4,709
Germany.....		18,722		5,592		9,132
Gibraltar.....		1,355				25
Hongkong.....		6,732		12,967		8,616
Japan.....		3,578		5,343		2,467
Malta and Cyprus.....		343		510		280
Mexico.....		71,027		84,842		59,625
Netherlands.....		3,973		205		1,900
Newfoundland and Lab-						
rador.....		2,377		9,679		8,437
Panama.....		37,081		29,184		23,726
Philippine Islands.....		49,849		116,824		77,757
Portuguese Africa.....		1,114		17,215		5,883
United Kingdom—						
England.....		584,902		473,722		620,245
Scotland.....		47,787		26,856		23,015
Ireland.....		13,685		13,750		3,595
Venezuela.....		9,815		3,678		7,447
Other countries.....		51,431		80,282		73,001
Total.....		1,060,222		1,030,031		1,180,123
Mutton—						
Canada.....	401,913	35,954	780,761	80,300	991,480	96,772
Panama.....	425,450	36,372	325,570	35,073	269,967	24,535
United Kingdom—						
England.....	472,520	48,078	627,270	65,010	598,869	63,882
Scotland.....	41,459	4,456	96,037	10,422	105,694	11,596
Other countries.....	157,332	16,794	159,834	22,672	194,249	22,732
Total.....	1,498,674	141,654	1,989,472	213,477	2,160,250	219,517

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Packing-house products.—Con.						
Oils, animal, n. e. s.—	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>
Belgium.....	126,831	76,535	151,040	124,411	185,178	165,122
Canada.....	26,463	15,471	14,601	9,227	32,005	20,647
France.....	46,817	36,725	60,234	53,309	72,320	66,444
Germany.....	157,061	81,415	83,653	59,573	123,659	97,713
Mexico.....	26,003	13,330	29,304	13,926	38,552	20,617
Netherlands.....	81,856	41,307	114,783	79,280	145,460	103,450
United Kingdom—						
England.....	69,682	31,307	32,834	22,952	39,966	26,303
Scotland.....	37,264	23,935			236,329	65,874
Ireland.....					1,270	762
Other countries.....	42,406	23,813	49,426	38,782	144,739	114,164
Total.....	614,383	343,838	535,875	401,460	1,019,473	681,096
Pork—						
Canned—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Argentina.....	260,334	42,011	122,190	18,480	103,150	20,187
Belgium.....	66,380	6,729	127,105	13,137	117,273	12,338
British South Africa.....	61,862	7,747	6,023	930	32,001	4,458
Canada.....	3,041	456	9,495	1,002	1,462	188
France.....	164,943	16,546	120,285	12,755	51,064	5,347
Netherlands.....	73,978	7,892	96,036	10,578	80,360	8,945
Philippine Islands.....	97,719	16,009	53,729	10,464	6,588	771
United Kingdom—						
England.....	4,136,057	427,260	2,732,720	302,981	2,661,410	317,073
Scotland.....	600,208	60,525	420,508	42,256	448,031	47,478
Ireland.....	4,480	559	2,400	288		
Other countries.....	290,928	34,459	371,531	46,972	509,523	67,174
Total.....	5,759,930	620,193	4,062,022	459,843	4,010,862	483,959
Cured—						
Bacon—						
Austria-Hungary.....	25,232	2,586	28,381	2,882	3,537,920	375,781
Belgium.....	6,311,750	621,215	2,206,288	241,588	3,546,610	496,099
Bermuda.....	70,206	10,532	65,558	11,519	68,917	11,882
Brazil.....	1,662,505	202,037	1,133,678	170,337	959,811	146,022
British West Indies—						
Barbados.....					3,284	664
Jamaica.....					27,358	5,363
Trinidad and Tobago.....					2,171	385
Other British.....	117,844	16,306	59,665	10,991	13,721	2,488
Canada.....	1,898,130	261,718	1,838,172	323,049	1,691,458	308,325
China.....	31,771	5,376	15,497	3,467	12,084	3,221
Cuba.....	6,375,910	623,929	7,045,647	834,349	6,223,775	748,361
Denmark.....	235,413	23,273	68,856	7,198	113,009	16,158
Dutch Guiana.....	1,506	186	2,891	518	1,978	342
Finland.....	(²)	(²)	(²)	(²)	2,954,259	358,129
France.....	200,254	29,397	22,544	2,738	1,711,108	184,194
Germany.....	713,088	73,345	278,092	30,596	827,976	106,033
Gibraltar.....	184,309	18,150	32,515	3,370	278,920	29,928
Hongkong.....	11,473	2,171	2,906	648	719	174
Italy.....	4,641,780	435,737	1,604,724	166,016	6,529,194	720,553
Mexico.....	732,383	100,082	621,464	95,436	338,828	59,349
Netherlands.....	2,008,200	199,665	1,065,262	108,748	4,350,896	517,639
Norway.....	1,028,696	94,382	330,062	37,451	3,784,062	451,339
Panama.....	121,180	17,986	239,721	38,132	419,516	76,230
Philippine Islands.....	571,211	87,529	684,391	108,572	542,762	109,188
Russia, European.....	2,351,015	218,862	447,953	46,978	244,612	33,256
Sweden.....	656,437	59,747	72,335	7,364	1,747,940	203,094
United Kingdom—						
England.....	202,713,852	21,595,925	126,822,261	15,269,180	111,970,322	15,561,465
Scotland.....	11,044,300	1,137,852	7,157,708	816,072	4,416,942	633,127
Ireland.....	285,897	28,032	15,162	2,106	17,375	2,238
Other countries.....	494,332	54,970	301,374	41,745	337,483	50,578
Total.....	244,578,674	25,920,490	152,163,107	18,381,050	156,675,310	21,211,605

¹ Excluding whale and fish oil.² Included in "Russia, European."³ Including "Finland" prior to July 1, 1910.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Packing-house products—Con.						
Pork—Continued.						
Cured—Continued.						
Hams and shoulders—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Belgium.....	9,128,448	1,005,308	5,305,286	587,747	9,091,920	1,004,026
Bermuda.....	344,777	49,349	328,146	50,056	328,188	43,910
British Guiana.....	189,927	23,612	230,472	34,162	204,743	34,094
British Honduras.....	233,626	28,487	190,647	28,018	217,316	32,312
British West Indies—						
Barbados.....					104,859	15,510
Jamaica.....	862,240	107,770	687,524	96,399	131,979	23,429
Trinidad and Tobago					212,721	32,437
Other British.....					147,612	22,609
Canada.....	2,458,705	323,750	2,557,460	394,486	2,918,140	469,857
China.....	35,122	5,640	29,401	5,541	23,573	5,890
Colombia.....	37,085	5,572	33,299	5,401	40,503	7,412
Costa Rica.....	79,211	10,114	105,413	16,105	102,216	15,366
Cuba.....	3,694,927	450,439	2,879,283	429,248	3,876,362	568,763
Denmark.....	154,534	14,147	46,419	4,620	6,140	795
Dutch Guiana.....	174,810	18,496	164,817	23,480	177,110	25,656
Ecuador.....	73,170	9,917	73,479	11,334	65,617	10,223
France.....	86,354	8,722	7,875	900	26,150	3,541
French West Indies.....	114,513	10,709	93,098	12,562	124,842	16,515
Germany.....	108,259	11,904	51,033	6,173	20,456	2,463
Haiti.....	82,954	12,255	117,973	19,076	146,093	27,710
Honduras.....	167,169	20,347	99,596	14,976	151,802	22,532
Italy.....	160,230	16,824	12,258	1,510	79,431	9,498
Japan.....	11,296	2,014	11,564	2,456	4,159	534
Mexico.....	840,677	121,388	903,325	139,734	639,694	104,396
Netherlands.....	663,416	68,394	108,929	12,229	225,860	25,614
Newfoundland and Labrador.....	281,493	32,503	167,341	22,291	187,256	24,452
Norway.....	272,128	28,939	100,570	11,998	435,107	52,098
Panama.....	931,812	126,258	939,677	145,155	1,103,128	175,894
Peru.....	85,968	11,320	61,597	9,175	83,327	12,498
Philippine Islands.....	182,653	26,226	355,563	53,758	236,764	44,390
Santo Domingo.....	120,945	18,395	159,902	25,184	155,521	28,053
Spain.....	147,714	20,107	129,240	17,081	123,515	16,312
United Kingdom—						
England.....	169,131,224	18,613,469	112,696,026	13,450,252	115,231,186	15,130,993
Scotland.....	20,596,617	2,225,167	17,580,213	2,098,110	20,180,088	2,552,686
Ireland.....	117,438	13,727	26,555	3,052	21,999	3,045
Venezuela.....	234,523	37,390	300,311	46,179	356,321	62,243
Other countries.....	366,259	47,648	331,093	49,927	522,618	75,326
Total.....	212,170,224	23,526,307	146,885,385	17,837,375	157,709,316	20,708,882
Salted or pickled—						
Belgium.....	244,800	21,712	139,166	12,869	159,363	18,559
Bermuda.....	125,982	12,046	94,195	10,622	79,532	9,817
Brazil.....	31,600	2,835	211,919	22,278	375,060	43,677
British Guiana.....	1,801,117	163,762	1,750,772	183,191	1,888,445	196,551
British Honduras.....	1,058,736	86,743	919,472	105,061	1,241,217	138,584
British South Africa.....	13,000	1,124	19,492	2,296	31,174	2,863
British West Indies—						
Barbados.....					543,140	55,053
Jamaica.....	4,784,778	439,807	3,316,707	350,104	795,450	78,793
Trinidad and Tobago					1,730,900	174,378
Other British.....					794,485	81,854
Canada.....	11,894,500	1,027,295	8,035,313	923,180	9,084,427	933,224
Colombia.....	8,250	712	3,340	365	7,700	855
Costa Rica.....	292,308	25,118	235,980	27,031	280,204	31,247
Cuba.....	6,408,780	536,764	5,830,391	672,151	7,382,763	824,403
Danish West Indies.....	127,600	11,901	95,720	10,357	109,510	12,319
Denmark.....	26,800	2,275	280	22	45,795	5,086
Dutch Guiana.....	586,211	61,844	770,830	87,221	927,000	92,828
Finland.....	(1)	(1)	(1)	(1)	228,240	22,400

1 Included in "Russia, European."

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Packing-house products—Con.						
Pork—Continued.						
Cured—Continued.						
Salted or pickled—Con.	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
France.....	324,800	31,053	65,876	6,875	223,515	23,423
French Guiana.....	154,000	14,586	111,535	12,062	55,800	6,616
French West Indies.....	180,000	17,580	68,200	7,052	114,100	12,930
Germany.....	885,950	79,646	398,848	39,978	1,009,895	111,809
Guatemala.....	129,944	10,353	82,584	9,274	106,669	11,583
Haiti.....	1,154,525	107,724	1,257,430	141,028	1,359,967	144,827
Honduras.....	168,078	13,901	108,753	12,532	54,670	6,388
Italy.....	990,027	83,296	491,961	39,298	43,660	3,911
Netherlands.....	222,249	20,328	46,471	4,302	92,768	10,207
Newfoundland and Labrador.....	5,166,360	428,029	4,445,455	449,967	5,001,156	520,928
Norway.....	784,534	65,969	703,023	65,288	787,347	77,452
Panama.....	1,115,370	91,550	1,424,273	160,743	1,232,848	140,535
Russia, European.....	591,414	51,019	256,715	22,875		
Santo Domingo.....	118,850	11,436	129,166	13,998	138,494	14,028
Sweden.....	358,430	28,855	57,762	5,503	619,661	60,995
United Kingdom—						
England.....	11,155,768	1,018,615	8,022,971	938,110	8,235,379	970,030
Scotland.....	864,420	80,276	656,368	61,669	516,611	57,397
Ireland.....	14,611	1,171			2,400	240
Other countries.....	562,188	50,106	230,641	24,542	429,226	48,658
Total.....	52,354,980	4,599,431	40,031,599	4,421,844	45,720,471	4,944,448
Fresh—						
British South Africa.....	62,056	6,185				
Canada.....	53,185	5,255	77,713	8,931	206,550	24,745
Cuba.....	109,815	9,744	235,415	28,312	88,987	12,575
Panama.....	273,722	34,497	231,140	31,816	439,670	53,319
United Kingdom—						
England.....	8,813,096	861,050	393,619	44,327	75,373	8,889
Scotland.....	187,804	15,992	1,200	120		
Other countries.....	55,637	5,302	101,191	13,382	544,798	60,126
Total.....	9,555,315	938,025	1,040,278	126,888	1,355,378	159,654
Lard—						
Australia, Commonwealth of.....	129,421	13,189	9,234	1,194	8,672	1,047
Austria-Hungary.....	103,399	10,270	339,464	35,814	9,318,647	868,009
Belgium.....	18,192,729	1,829,910	9,060,499	1,040,041	19,899,546	2,166,478
Bolivia.....	98,149	11,378	108,358	14,653	131,635	17,988
Brazil.....	1,622,394	195,890	1,036,472	147,461	642,070	79,245
British Guiana.....	248,123	26,435	141,105	18,674	115,646	14,408
British Honduras.....	122,938	13,258	148,669	21,149	179,938	21,734
British South Africa.....	921,255	97,732	517,015	66,564	1,029,510	121,805
British West Africa.....	152,043	14,999	87,721	9,934	178,949	19,619
British West Indies—						
Barbados.....					166,544	19,384
Jamaica.....					55,193	6,127
Trinidad and Tobago.....	991,821	92,001	931,061	102,404	282,448	28,804
Other British.....					113,741	12,151
Canada.....	11,999,862	1,238,567	9,310,289	1,227,854	6,555,698	768,049
Chile.....	1,017,339	110,293	462,558	63,053	977,820	108,641
China.....	8,572	1,091	13,120	1,735	6,840	922
Colombia.....	1,456,703	140,434	1,340,070	147,018	1,505,392	162,514
Costa Rica.....	527,875	57,680	1,184,112	161,307	1,005,778	193,782
Cuba.....	24,193,898	2,494,525	33,239,041	4,094,352	34,968,597	3,992,092
Danish West Indies.....	27,195	2,829	61,033	6,802	59,955	6,049
Denmark.....	7,180,575	707,974	4,502,551	485,927	1,495,665	170,285
Dutch West Indies.....	92,415	8,851	92,927	10,258	88,227	9,742
Ecuador.....	3,735,915	405,885	3,122,817	436,636	3,511,578	413,978
France.....	6,031,210	594,129	471,140	50,146	12,705,888	1,303,231
French Guiana.....	201,703	25,185	129,946	18,556	76,285	8,794

¹ Including, "Finland," prior to July 1, 1910.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Packing-house products—Con.						
Pork—Continued.						
Lard—Continued.	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
French West Indies.....	156,840	17,876	39,452	5,158	75,764	9,505
Germany.....	176,978,097	17,519,132	93,392,661	11,308,519	151,619,795	16,784,897
Gibraltar.....	305,697	31,232	160,600	17,943	205,953	21,692
Guatemala.....	20,346	2,285	5,865	849	62,991	7,001
Haiti.....	2,517,260	240,801	2,672,249	304,663	2,975,517	326,701
Italy.....	3,764,455	379,846	2,263,239	248,261	5,780,547	623,632
Malta and Cyprus.....	312,020	32,067	125,176	14,570	102,650	10,398
Mexico.....	7,035,689	719,928	5,376,283	640,133	9,499,574	1,133,117
Netherlands.....	48,193,850	4,788,682	23,757,591	2,776,686	33,220,569	3,884,182
Newfoundland and Labrador.....	551,800	54,958	316,016	38,508	457,545	53,033
Nicaragua.....	27,426	2,952	82,671	12,232	216,692	24,668
Norway.....	2,116,778	205,174	1,433,239	157,767	1,195,546	130,621
Panama.....	1,439,253	148,877	943,826	120,134	3,784,637	413,083
Peru.....	1,709,051	179,934	1,419,490	181,828	1,993,544	218,927
Philippine Islands.....	354,530	37,607	354,468	47,800	429,731	53,926
Portuguese Africa.....	277,234	28,901	216,365	24,204	259,035	28,955
Russia, European.....	753,568	75,676	425,128	47,452	639,806	69,255
Santo Domingo.....	582,479	63,202	660,317	83,616	880,035	103,807
Spain.....	128,408	13,255	84,016	9,259	66,008	7,166
Straits Settlements.....	289,647	28,046	1,320	195	1,679	198
Sweden.....	1,666,214	160,278	680,747	78,035	731,080	78,900
United Kingdom—						
England.....	190,574,710	18,876,601	157,672,731	18,486,301	160,911,247	17,438,172
Scotland.....	6,747,667	670,577	3,146,303	360,000	4,310,588	465,287
Ireland.....	1,106,760	118,229	512,004	62,934	190,579	19,780
Venezuela.....	1,563,743	170,447	483,102	62,990	244,445	28,724
Other countries.....	493,877	53,501	393,010	49,587	512,038	58,312
Total.....	528,722,933	52,712,569	362,927,671	43,391,156	476,107,857	52,509,217
Lard, neutral—						
Belgium.....					421,075	44,923
Denmark.....					3,360,458	387,112
Germany.....					8,567,456	918,135
Netherlands.....					19,903,890	2,118,076
Newfoundland and Labrador.....					783,480	85,399
Norway.....	(1)	(1)	(1)	(1)	2,443,740	293,134
Sweden.....					692,976	75,581
United Kingdom—						
England.....					1,420,412	181,825
Scotland.....					72,955	7,583
Ireland.....					56,597	6,372
Other countries.....					143,773	16,154
Total.....	(1)	(1)	(1)	(1)	37,866,812	4,134,294
Oils—						
Lard oil—	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>
Belgium.....	4,994	3,404	602	495	1,280	1,082
British South Africa.....	22,264	16,214	10,613	10,467	14,019	10,581
France.....	1,249	695	11,190	8,569	3,000	2,555
Germany.....	61,773	43,845	47,747	46,619	37,851	30,151
Mexico.....	16,882	13,536	16,245	13,954	15,650	11,572
United Kingdom—						
England.....	41,375	28,349	18,947	12,014	16,180	10,695
Scotland.....	3,624	3,001	1,790	1,610	1,400	1,125
Ireland.....	2,450	1,635	3,750	2,525		
Other countries.....	80,015	56,965	40,258	34,988	30,714	22,963
Total.....	234,626	167,644	151,142	131,241	120,094	90,724

¹ Included in "Oleo oil."

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Packing-house products—Con.						
Sausage and sausage meats—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Belgium	1,051,264	104,973	470,336	54,029	292,696	35,251
British South Africa	70,856	8,576	62,320	7,994	175,880	22,904
Canada	337,678	44,207	328,785	49,133	395,174	66,704
Cuba	2,316,959	273,631	2,177,828	267,429	2,105,230	261,474
France	2,641,651	324,565	422,773	55,323	411,107	46,568
French Africa	140,334	15,620	104,022	13,787	88,145	12,621
Gibraltar	91,199	10,482	103,365	12,649	41,932	5,324
Italy	442,737	51,202	188,398	24,628	59,575	7,240
Netherlands	131,030	13,125	86,554	9,896	3,218	3,330
Panama	277,861	31,812	306,445	33,825	404,790	45,584
Philippine Islands	242,569	37,260	300,908	32,943	127,779	14,177
Santo Domingo	20,105	2,402	76,051	10,709	133,422	22,920
United Kingdom—						
England	364,640	32,189	30,349	3,530	65,036	6,913
Scotland	70,282	6,978	29,491	3,204	24,412	2,678
Ireland	1,125	141				
Other countries	337,768	40,492	384,650	48,590	388,214	50,908
Total	8,538,058	997,655	5,072,255	627,669	4,716,610	601,596
Sausage casings—						
Australia, Commonwealth of		118,137	1,177,966	175,806	906,708	198,063
Austria-Hungary		1,363	86,561	9,015	341,378	37,261
Belgium		94,202	832,467	90,984	603,386	76,846
British South Africa		9,094	124,302	29,446	86,838	19,067
Canada		40,511	225,656	59,071	165,707	58,532
Denmark		40,835	308,482	33,372	799,196	93,011
France		151,688	1,215,467	175,229	906,427	156,500
Germany		1,123,658	15,109,507	1,792,659	17,407,148	2,268,030
Italy		8,553	81,551	11,675	219,482	22,815
Netherlands	(1)	1,128,762	8,579,490	1,188,752	11,134,339	1,575,976
New Zealand		34,954	326,604	50,566	269,854	64,045
Norway		18,879	132,400	15,763	343,797	39,552
Russia, European		69,355	565,466	50,301	1,237,251	123,352
Spain		199,561	1,724,555	167,740	2,290,779	232,306
Sweden		59,327	862,169	86,520	741,581	76,114
United Kingdom—						
England		396,008	3,882,696	540,260	2,429,466	404,231
Scotland		16,580	121,576	18,903	68,230	11,728
Ireland					14,700	1,200
Other countries		8,724	62,042	7,277	47,493	7,432
Total	(1)	3,520,191	35,418,957	4,503,339	40,013,760	5,466,661
Other packing-house products—						
Austria-Hungary		56		814		12,222
Belgium		38,096		43,128		34,951
Bermuda		3,954		7,228		7,074
British Guiana		38,634		35,675		45,858
British South Africa		3,558		3,203		2,908
British West Indies—						
Barbados						52,617
Jamaica						12,922
Trinidad and Tobago		143,472		142,080		58,387
Other British						15,472
Canada		74,184		89,006		77,089
Cuba		23,797		58,307		15,513
Denmark		11,052		25,955		20,942
Dutch West Indies		9,496		11,096		7,554
French Guiana		13,349		11,745		12,944
French West Indies		9,671		8,603		16,445
Germany		34,798		10,144		37,548

¹ Not stated.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Packing-house products—Con.						
Other packing-house products—Continued.		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
Haiti.....		25,500		34,466		27,862
Italy.....		4,337		988		545
Mexico.....		20,324		11,943		20,705
Netherlands.....		17,095		5,294		5,724
Newfoundland and Labrador.....		6,370		2,443		2,403
Norway.....		3,704				950
Russia, European.....		322				
Spain.....		1,027		65		350
Sweden.....		10,938				26,069
United Kingdom—						
England.....		1,184,022		774,759		606,535
Scotland.....		20,533		11,064		27,706
Ireland.....		5,951		6,390		
Other countries.....		79,031		67,437		48,437
Total.....		1,783,331		1,361,833		1,197,732
Total packing-house products—						
Argentina.....		99,537		108,553		145,282
Australia, Commonwealth of.....		260,476		328,201		360,576
Austria-Hungary.....		114,751		112,066		1,889,397
Azores, and Maderia Is.....		2,178		5,296		1,558
Belgium.....		4,883,546		3,188,493		5,054,229
Bermuda.....		202,764		202,112		213,636
Brazil.....		445,261		398,866		350,741
British East Africa.....		11,111		8,283		7,110
British India.....		16,201		20,088		42,678
British Guiana.....		397,026		398,745		486,337
British Honduras.....		199,131		241,523		296,116
British South Africa.....		410,376		355,816		499,596
British West Africa.....		49,004		36,470		42,676
British West Indies—						
Barbados.....						301,318
Jamaica.....						293,624
Trinidad and Tobago.....		1,496,013		1,389,658		610,702
Other British.....						346,567
Canada.....		4,478,525		5,175,711		5,979,894
Chile.....		228,457		275,764		317,724
China.....		36,193		42,907		43,856
Colombia.....		231,746		202,716		275,834
Costa Rica.....		205,201		348,649		398,887
Cuba.....		7,353,096		9,207,231		9,531,113
Danish West Indies.....		55,681		59,860		66,011
Denmark.....		2,467,221		1,491,277		1,503,729
Dutch East Indies.....		18,314		18,226		25,925
Dutch Guiana.....		231,448		240,384		282,684
Dutch West Indies.....		58,593		61,653		70,363
Ecuador.....		420,957		473,398		439,335
Egypt.....		11,318		9,486		21,219
France.....		2,269,926		939,505		2,681,779
French Africa.....		52,796		22,678		22,478
French Guiana.....		125,588		88,384		98,409
French Oceania.....		7,663		8,665		7,739
French West Indies.....		131,575		68,285		101,387
Germany.....		24,961,396		18,365,498		25,652,225
German Oceania.....		3,625		3,767		6,207
Gibraltar.....		83,744		54,542		75,750
Guatemala.....		74,310		70,539		75,360
Haiti.....		522,731		730,362		857,683
Honduras.....		83,797		71,167		67,843
Hongkong.....		19,989		20,172		17,088
Italy.....		1,934,957		1,078,769		2,287,995
Japan.....		128,767		119,320		181,398

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Animal matter—Continued.</i>						
Packing-house products—Con.						
Total packing-house products—Continued.		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
Malta and Cyprus.....		34,984		21,507		16,550
Mexico.....		1,707,366		1,753,984		2,294,379
Netherlands.....		14,585,793		10,798,455		16,465,062
Newfoundland and Labrador.....		1,173,170		1,201,644		1,413,439
New Zealand.....		48,568		70,944		87,741
Nicaragua.....		83,002		104,260		115,018
Norway.....		1,570,762		1,499,789		2,376,356
Panama.....		1,211,444		1,384,134		1,727,166
Peru.....		281,483		386,074		357,991
Philippine Islands.....		359,472		502,063		397,642
Portugal.....		31,006		16,511		22,665
Portuguese Africa.....		143,593		176,575		156,630
Russia, Asiatic.....		42,705		21,379		4,612
Russia, European.....		575,284		340,112		448,903
St. Pierre and Miquelon.....		2,494		3,753		6,980
Santo Domingo.....		145,692		208,448		228,428
Spain.....		277,610		293,017		279,336
Straits Settlements.....		90,208		35,230		40,290
Sweden.....		655,914		444,143		763,635
Turkey, Asiatic.....		82,190		97,113		193,717
Turkey, European.....		275,544		298,306		564,378
United Kingdom—						
England.....		85,613,849		64,924,596		61,139,420
Scotland.....		5,658,702		4,889,328		5,313,623
Ireland.....		244,180		179,951		130,473
Venezuela.....		233,410		131,658		130,492
Other countries.....		78,436		133,314		595,582
Total.....		169,991,850		135,959,373		157,302,666
Poultry and game:						
Bermuda.....		17,465		19,632		25,357
British South Africa.....		4,986				
British West Indies—						
Barbados.....						
Jamaica.....		11,034		8,200		3,082
Trinidad and Tobago.....						5
Other British.....						3,413
Canada.....		36,864		35,972		47,036
Cuba.....		7,656		12,427		9,279
Panama.....		74,549		73,679		86,920
United Kingdom—						
England.....		678,044		446,232		777,510
Scotland.....		12,372				20,675
Other countries.....		5,674		3,406		8,528
Total.....		848,644		599,548		981,805
<i>Vegetable matter.</i>						
Broom corn:						
Canada.....		242,146		372,341		292,625
Cuba.....		36,546		36,542		53,650
Other countries.....		25,830		15,601		17,369
Total.....		304,522		424,484		363,644
Cider:						
United Kingdom—						
England.....	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>
Other countries.....	82,290	12,334			1,768	1,203
Other countries.....	5,340	1,787	5,784	1,965	20,940	7,588
Total.....	87,630	14,121	5,784	1,965	22,708	8,791

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Cocoa, ground or prepared, and chocolate:		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
British Honduras		4,986		5,784		9,217
Canada		303,434		336,949		330,501
China		2,768		2,963		3,106
Cuba		28,001		23,558		29,735
Mexico		17,657		10,724		10,614
Panama		52,732		46,023		45,086
Other countries		61,900		45,357		70,435
Total		471,458		471,358		498,694
Coffee:						
Green or raw—						
Australia, Commonwealth of	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
	10,150	1,202	101,600	12,199	13,500	1,829
Austria-Hungary	3,325,524	445,783	6,326,126	833,604	2,569,956	369,338
Belgium	76,821	10,381	97,046	12,662	9,370	1,380
Canada	179,794	22,846	111,544	13,172	205,928	27,771
Cuba	11,341,713	1,427,252	20,635,625	2,455,687	20,243,247	2,978,369
Denmark	62,739	7,996	91,574	11,904	56,023	7,657
France	4,076,592	531,333	4,327,936	552,511	2,305,318	323,480
Germany	549,089	72,982	1,781,380	231,782	317,001	46,650
Italy	2,976,898	401,602	2,834,781	377,517	2,152,671	319,631
Netherlands	272,262	36,154	680,849	94,990	105,848	15,570
Philippine Islands	1,287	144	190,189	22,680	847,419	107,347
Spain	5,644,703	757,454	8,070,935	1,050,070	5,301,823	875,937
Other countries	112,706	14,711	264,853	35,008	225,497	32,981
Total	28,630,278	3,729,840	45,514,438	5,703,786	34,853,601	5,107,949
Roasted or prepared—						
Canada	282,019	51,843	232,591	44,973	290,434	66,957
Cuba	72,247	8,133	55,552	7,898	195,954	38,269
Mexico	87,115	15,086	162,751	22,961	239,713	32,294
Panama	60,051	9,404	198,258	28,155	247,464	39,689
Philippine Islands	227,036	39,930	340,354	60,163	231,183	43,784
Other countries	257,632	31,380	221,380	32,198	279,542	51,539
Total	986,100	155,776	1,210,886	196,348	1,484,290	272,532
Cotton:						
Sea Island—						
France	2,534,934	522,779	2,037,169	601,311	1,928,330	572,898
Germany	213,039	44,423	260,025	76,538	241,156	75,256
United Kingdom—						
England	6,794,152	1,435,241	9,142,243	2,593,715	5,739,642	1,610,060
Scotland					114,123	31,617
Other countries	198,681	32,677	20,840	4,877	191,696	55,727
Total	9,740,806	2,035,120	11,460,277	3,276,441	8,214,847	2,345,567
Upland ¹ —						
Austria-Hungary	47,390,931	4,505,693	28,609,947	4,038,684	39,764,890	5,891,089
Belgium	78,815,530	7,255,554	51,172,864	6,741,823	75,112,308	9,738,491
British India	429,307	39,203			262,457	38,712
Canada	65,533,657	6,355,797	62,796,152	8,936,006	78,236,198	11,387,372
China	209,216	22,280				
Denmark	52,916	6,500	516,918	79,606	342,041	45,236
Finland	(²)	(²)	(²)	(²)	100,487	14,973
France	546,551,574	50,443,081	482,174,062	66,952,441	509,070,812	74,349,137
Germany	1,218,832,119	112,382,223	943,568,546	131,336,648	1,101,112,556	156,721,340
Greece	451,078	43,254	290,451	40,055	810,411	116,060
Guatemala	298,770	29,845	237,968	31,887	615,062	92,128
Hongkong	706,815	72,273			445,440	65,000
Italy	282,847,412	27,090,990	196,663,417	27,628,516	218,147,880	31,689,652
Japan	104,471,432	10,614,249	47,500,059	6,582,983	78,361,901	11,804,449

¹ Including linters.² Included in "Russia, European."

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Cotton—Continued.						
Upland—Continued.	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Mexico.....	21,287,276	2,207,322	14,801,849	1,948,056	2,315,560	339,464
Netherlands.....	15,064,346	1,216,464	9,411,677	1,011,535	9,062,039	963,946
Norway.....	3,857,257	381,238	2,127,686	301,161	4,012,666	584,283
Philippine Islands.....	779,671	78,363	578,142	76,350	474,434	70,316
Portugal.....	12,542,286	1,246,411	11,504,756	1,630,257	7,340,718	1,089,268
Russia, European ¹	48,332,180	4,517,173	33,580,700	4,747,272	42,454,547	6,235,885
Spain.....	150,894,335	14,252,803	89,227,263	12,726,585	121,036,602	17,749,980
Sweden.....	12,183,040	1,160,932	7,249,373	1,029,964	11,749,914	1,704,175
United Kingdom—						
England.....	1,798,077,025	168,743,472	1,198,199,349	169,197,790	1,708,975,442	249,884,515
Scotland.....	3,124,537	294,924	1,808,577	260,878	751,726	106,836
Ireland.....	24,681,600	2,315,107	13,128,955	1,859,404	14,945,912	2,210,652
Other countries.....	830,086	80,394	99,238	12,901	224,065	30,343
Total.....	4,433,244,396	415,355,545	3,195,247,949	447,170,802	4,025,726,068	582,973,302
Total cotton—						
Austria-Hungary.....	47,390,931	4,505,693	28,609,947	4,038,634	39,764,890	5,891,089
Belgium.....	78,815,530	7,255,554	51,172,864	6,741,823	75,112,308	9,788,491
British India.....	429,307	39,203			262,457	38,712
Canada.....	65,726,749	6,387,199	62,790,152	8,936,006	78,412,036	11,438,099
China.....	209,216	22,280				
Denmark.....	52,916	6,500	516,918	79,606	342,041	45,236
Finland.....	(²)	(²)	(²)	(²)	100,487	14,973
France.....	549,086,508	50,965,860	484,211,231	67,553,752	510,999,142	74,922,035
Germany.....	1,219,045,158	112,426,646	943,828,571	131,413,186	1,101,353,712	166,796,596
Greece.....	451,078	43,254	290,451	40,055	810,411	116,060
Guatemala.....	298,770	29,845	237,968	31,887	615,062	92,128
Hongkong.....	706,615	72,273			445,440	65,000
Italy.....	282,847,412	27,090,990	196,663,417	27,628,516	218,147,880	31,689,652
Japan.....	104,471,432	10,614,249	47,500,059	6,582,983	78,361,901	11,804,449
Mexico.....	21,287,276	2,207,322	14,801,849	1,948,056	2,315,560	339,464
Netherlands.....	15,064,346	1,216,464	9,411,677	1,011,535	9,062,039	963,946
Norway.....	3,857,257	381,238	2,127,686	301,161	4,012,666	584,283
Philippine Islands.....	779,671	78,363	578,142	76,350	474,434	70,316
Portugal.....	12,542,286	1,246,411	11,504,756	1,630,257	7,340,718	1,089,268
Russia, European ¹	48,332,180	4,518,448	33,601,540	4,752,149	42,470,305	6,240,885
Spain.....	150,894,335	14,252,803	89,227,263	12,726,585	121,036,602	17,749,980
Sweden.....	12,183,040	1,160,932	7,249,373	1,029,964	11,749,914	1,704,175
United Kingdom—						
England.....	1,804,871,177	170,178,713	1,207,341,592	171,791,505	1,714,715,084	251,494,584
Scotland.....	3,124,537	294,924	1,808,577	260,878	865,849	133,453
Ireland.....	24,681,600	2,315,107	13,128,955	1,859,404	14,945,912	2,210,652
Other countries.....	830,086	80,394	99,238	12,901	224,065	30,343
Total.....	4,447,985,202	417,390,665	3,206,708,226	450,447,243	4,033,940,915	585,318,869
Flavoring extracts and fruit						
juices:						
Brazil.....		8,889		8,721		10,196
Canada.....		8,227		12,613		26,918
Mexico.....		1,179		4,338		12,011
Panama.....		8,410		12,894		16,009
Philippine Islands.....		6,204		4,529		12,615
United Kingdom—						
England.....		5,095		11,561		10,410
Scotland.....				8		
Other countries.....		26,414		30,192		45,195
Total.....		64,418		84,856		136,354
Flowers, cut.....		4,433		10,585		24,676

¹ Including "Finland" prior to July 1, 1910.² Included in "Russia, European."

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Fruits:						
<i>Fresh or dried—</i>						
<i>Apples, dried—</i>						
Belgium.....	<i>Pounds.</i> 1,935,360	<i>Dollars.</i> 123,164	1,510,939	100,496	974,335	74,371
British South Africa.....	170,120	16,071	134,514	13,523	111,257	13,881
Canada.....	82,003	5,012	104,885	8,722	266,792	22,985
Denmark.....	1,360,162	94,528	832,933	63,024	1,266,949	113,580
France.....	579,288	41,272	104,473	8,702	784,606	76,854
Germany.....	15,744,837	1,091,426	13,646,650	1,174,480	10,507,494	951,858
Netherlands.....	10,218,898	745,103	6,430,614	519,813	5,244,142	463,977
Norway.....	285,590	19,699	215,690	16,392	198,416	16,856
Russia, European.....	195,200	11,651	110,200	7,458	57,715	4,564
Sweden.....	1,095,650	69,104	880,620	60,692	760,393	62,474
United Kingdom—						
England.....	1,152,626	73,380	476,185	32,482	917,162	78,891
Scotland.....	78,900	5,864	126,925	7,605	52,800	4,702
Other countries.....	576,000	43,762	501,990	43,303	662,025	59,216
Total.....	33,474,634	2,339,936	25,076,618	2,056,692	21,804,086	1,944,209
<i>Apples, fresh—</i>						
Australia, Common-wealth of.....	<i>Barrels.</i> 21,120	<i>Dollars.</i> 46,029	3,400	11,138	12,230	32,896
Belgium.....	886	3,565	707	3,152	2,325	9,424
Brazil.....	7,205	20,288	9,462	31,829	13,387	46,630
Canada.....	65,920	197,325	68,920	279,290	155,081	502,959
Cuba.....	16,699	60,496	16,835	68,770	21,928	93,337
Denmark.....	10,655	36,709	4,569	14,732	11,959	45,045
France.....	882	3,767	255	1,236	842	4,042
Germany.....	36,463	130,196	108,788	408,174	112,319	451,296
Hongkong.....	5,506	12,291	3,793	11,621	4,351	11,955
Mexico.....	17,157	48,191	20,899	63,054	18,539	65,852
Netherlands.....	915	3,835	1,871	8,210	937	4,710
New Zealand.....	8,377	15,491	11,846	25,422	13,418	33,542
Panama.....	5,922	24,478	6,347	29,388	8,284	44,677
United Kingdom—						
England.....	566,124	1,714,670	569,139	1,859,268	1,050,254	3,346,641
Scotland.....	111,233	395,671	77,585	295,491	267,830	969,812
Ireland.....	14	59	2	10	26	133
Other countries.....	21,251	68,946	17,662	64,648	27,396	114,507
Total.....	896,279	2,782,007	922,078	3,175,433	1,721,106	5,777,458
<i>Apricots, dried—</i>						
Belgium.....	<i>Pounds.</i> 1,071,557	<i>Dollars.</i> 98,562	412,340	42,456	755,010	79,876
British South Africa.....	12,595	1,470	4,890	625	3,407	516
Canada.....	1,576,001	114,605	1,134,547	102,063	1,155,007	111,381
Denmark.....	739,474	70,255	614,665	62,381	692,200	74,077
France.....	2,311,206	205,383	1,311,119	137,576	3,026,252	307,248
Germany.....	5,840,299	568,290	3,720,770	371,595	5,448,447	599,130
Italy.....	21,375	2,097	60,754	5,498	65,507	6,437
Netherlands.....	2,161,286	209,571	1,793,425	193,714	2,580,684	291,440
New Zealand.....	466,441	37,630	176,070	16,946	218,200	20,637
United Kingdom—						
England.....	1,733,004	144,318	2,194,159	219,802	4,707,435	518,635
Scotland.....	69,400	6,250	94,250	9,933	105,090	11,854
Other countries.....	595,233	53,986	511,845	55,834	572,119	64,206
Total.....	16,597,871	1,512,417	12,028,834	1,218,423	19,329,358	2,085,437
<i>Oranges—</i>						
Australia, Common-wealth.....	<i>Boxes.</i> 400	<i>Dollars.</i> 888	1,100	2,530	.....	.....
Canada.....	823,825	1,995,049	881,260	2,047,477	1,132,760	2,831,527
New Zealand.....	6,948	12,447	8,375	16,786	13,933	31,443
United Kingdom—						
England.....	28,286	98,512	31,274	116,062	22,444	86,241
Scotland.....	1,181	3,864	1,436	5,432	92	330
Other countries.....	6,113	20,964	8,673	25,618	10,044	33,781
Total.....	866,753	2,131,724	932,118	2,213,905	1,179,273	2,983,322

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
<i>Fruits—Continued.</i>						
<i>Fresh or dried—Continued.</i>						
Peaches, dried—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
British South Africa.....	9,800	966	8,221	935	18,774	2,025
Canada.....	1,728,427	97,353	1,913,922	101,689	3,141,006	203,024
Germany.....	257,885	21,134	349,503	22,312	2,640,656	189,817
Other countries.....	407,318	31,881	345,423	26,584	1,324,578	104,664
Total.....	2,403,430	151,334	2,617,069	151,520	7,125,014	499,530
Pears, fresh—						
Canada.....		106,702		121,199		163,083
Cuba.....		50,547		38,148		35,772
United Kingdom—						
England.....		345,256		108,642		319,963
Scotland.....		25,009		12,584		26,080
Other countries.....		18,684		22,385		33,169
Total.....		546,198		302,958		578,067
Prunes—						
Australia, Common-wealth of.....	134,000	6,264	232,700	8,451	92,235	5,799
Belgium.....	852,567	50,171	7,251,547	338,079	3,015,996	194,574
British South Africa.....	11,200	933	7,321	585	8,110	646
Canada.....	8,322,074	341,169	10,583,094	415,668	8,837,132	476,826
Cuba.....	161,738	11,913	229,871	15,405	188,844	17,409
Denmark.....	677,705	42,952	3,343,354	168,149	418,157	29,789
Finland.....	(¹)	(¹)	(¹)	(¹)	229,395	16,365
France.....	3,375	157	5,264,723	361,811	14,233,136	988,745
Germany.....	6,951,484	309,302	36,578,182	1,306,768	12,604,037	794,223
Italy.....	109,360	5,268	962,047	40,612	542,636	39,608
Mexico.....	176,094	9,052	258,471	11,025	152,948	10,435
Netherlands.....	1,916,840	111,070	8,521,047	459,664	2,372,880	174,623
New Zealand.....	612,230	30,323	1,015,090	40,900	753,110	47,932
Norway.....	8,400	540	198,755	9,603	9,660	675
Russia, European ²	199,490	12,988	589,785	36,836	87,950	6,673
Sweden.....	126,900	10,753	1,124,065	71,624	1,165,029	85,690
United Kingdom—						
England.....	1,670,743	95,651	11,488,331	652,284	4,721,314	268,684
Scotland.....	99,480	5,935	864,544	50,262	910,476	58,753
Other countries.....	568,608	33,769	501,953	28,828	687,666	54,522
Total.....	22,602,288	1,078,210	89,014,880	4,016,554	51,030,711	3,271,971
Raisins—						
Australia, Common-wealth of.....	5,400	358	5,600	300	6,200	415
Canada.....	5,736,290	316,622	6,086,327	279,709	11,004,209	592,405
Mexico.....	177,600	11,296	290,750	16,361	352,354	20,296
Newfoundland and Labrador.....	270,771	13,510	142,376	8,257	286,866	15,430
New Zealand.....	1,133,495	71,804	1,323,520	68,012	2,647,125	143,754
Other countries.....	556,605	42,067	677,541	44,764	4,363,238	297,000
Total.....	7,880,161	455,657	8,526,114	417,403	18,659,992	1,069,300
Other fruit, fresh or dried—						
Australia, Common-wealth of.....		7,011		565		1,023
Belgium.....		34,475		28,179		26,997
British South Africa.....		1,155		2,989		5,157
Canada.....		1,156,041		1,278,451		1,644,254
China.....		10,783		11,541		9,659
Cuba.....		37,528		49,224		73,307
Denmark.....		20,172		4,007		4,913
France.....		51,677		63,159		197,742
Germany.....		253,609		108,055		183,604
Japan.....		4,320		4,700		4,357
Mexico.....		67,935		84,023		71,706

¹ Included in "Russia, European."² Including "Finland," prior to July 1, 1910.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
<i>Fruits—Continued.</i>						
Fresh or dried—Continued.						
Other fruit, fresh or dried—Continued.						
Netherlands.....		Dollars. 164,229		Dollars. 233,814		Dollars. 101,885
New Zealand.....		16,522		712		502
Panama.....		29,914		40,252		37,286
Philippine Islands.....		15,545		10,252		12,314
Sweden.....		2,886		2,390		37,820
United Kingdom—						
England.....		152,780		105,718		201,872
Scotland.....		4,396		4,120		38,075
Ireland.....		8		12		56
Other countries.....		73,638		87,047		139,752
Total.....		2,104,624		2,119,210		2,792,281
Prepared or preserved—						
Canned—						
Australia, Commonwealth of.....		13,882		9,868		7,146
Belgium.....		4,896		4,252		12,571
Brazil.....		16,473		22,619		28,838
British India.....		9,965		14,609		19,808
British South Africa.....		10,352		10,210		10,208
Canada.....		69,707		67,439		160,636
China.....		20,606		15,183		13,933
Cuba.....		72,042		54,418		91,241
Dutch East Indies.....		26,973		33,858		49,848
France.....		17,832		14,503		40,682
Germany.....		46,935		50,317		55,045
Hongkong.....		6,971		7,343		8,915
Japan.....		4,524		5,498		5,851
Mexico.....		18,759		12,460		9,346
New Zealand.....		68,734		61,984		92,313
Panama.....		39,120		45,464		66,237
Philippine Islands.....		56,378		63,207		57,208
Portuguese Africa.....		4,457		5,268		5,587
Straits Settlements.....		10,868		12,827		14,212
United Kingdom—						
England.....		2,263,695		2,003,168		1,769,612
Scotland.....		4,378		6,459		32,021
Ireland.....		1,868		1,425		1,100
Other countries.....		109,959		133,640		134,087
Total.....		2,899,374		2,656,019		2,686,445
Other than canned—						
Canada.....		22,585		108,301		131,067
Mexico.....		8,157		9,656		2,121
Panama.....		7,321		7,166		10,825
United Kingdom—						
England.....		9,597		12,489		14,731
Scotland.....		346		124		900
Ireland.....				50		
Other countries.....		29,740		38,688		45,909
Total.....		77,746		176,474		205,643
Total fruits—						
Argentina.....		25,288		46,833		63,270
Australia, Commonwealth of.....		77,612		36,553		52,300
Belgium.....		316,056		517,112		408,070
Bermuda.....		18,436		18,250		27,490
Brazil.....		43,012		71,818		108,117
British India.....		11,428		16,305		22,559
British South Africa.....		31,462		30,164		38,519
British West Indies—						
Barbados.....						3,606
Jamaica.....						12,307
Trinidad and Tobago.....		32,330		26,288		7,628
Other British.....						9,078
Canada.....		4,422,170		4,810,008		6,840,147

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Fruits—Continued.						
Total fruits—Continued.						
		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
China.....		46,933		40,545		42,267
Colombia.....		6,488		8,831		13,073
Cuba.....		243,120		240,569		325,977
Denmark.....		273,901		329,869		290,370
Dutch East Indies.....		29,619		35,856		53,460
France.....		321,286		588,656		1,638,436
Germany.....		2,430,363		3,453,487		3,313,447
Hongkong.....		26,477		26,614		27,907
Italy.....		16,875		52,882		59,916
Japan.....		27,067		29,963		32,200
Mexico.....		178,179		220,821		204,832
Netherlands.....		1,249,736		1,439,034		1,104,177
Newfoundland and Labrador.....		36,910		24,079		46,086
New Zealand.....		269,250		244,432		383,568
Norway.....		39,822		41,533		55,550
Panama.....		110,100		142,042		183,711
Peru.....		13,465		14,015		13,794
Philippine Islands.....		85,647		102,540		114,009
Portuguese Africa.....		11,991		10,496		12,914
Russia, Asiatic.....		49,901		17,201		37,330
Russia, European.....		32,896		54,389		22,630
Straits Settlements.....		12,069		14,326		14,788
Sweden.....		99,746		157,118		218,117
United Kingdom—						
England.....		4,910,129		5,113,242		6,729,870
Scotland.....		453,801		393,676		1,149,991
Ireland.....		1,935		1,497		1,289
Other countries.....		123,727		133,556		210,863
Total.....		16,079,227		18,504,591		23,893,663
Ginseng:						
	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Hongkong.....	184,550	1,259,429	192,002	1,436,761	153,927	1,087,830
Other countries.....	1,707	10,750	404	2,673	72	372
Total.....	186,257	1,270,179	192,406	1,439,434	153,999	1,088,202
Glucose and grape sugar:						
Glucose—						
Argentina.....	3,261,255	80,334	5,142,795	124,775	5,419,746	110,322
Australia, Commonwealth of.....	5,503,200	115,585	5,166,017	135,106	6,912,492	154,436
Austria-Hungary.....	312,894	6,461	1,317,445	29,509	2,119,714	41,444
Belgium.....	820,054	17,134	1,432,274	33,440	1,127,359	23,553
British South Africa.....	1,203,428	28,549	2,030,382	53,663	2,012,105	45,557
Canada.....	1,491,060	36,276	3,478,069	71,403	1,442,088	25,498
Cuba.....	615,565	14,918	648,834	17,003	656,826	14,675
Germany.....	870,864	17,604	1,087,087	24,119	950,150	19,179
Italy.....	252,541	5,643	278,013	6,044	607,185	12,591
Mexico.....	569,608	15,139	653,103	19,022	1,200,095	28,867
Netherlands.....	85,021	1,913	80,991	1,780	559,542	11,628
New Zealand.....	1,100,822	21,507	1,332,557	35,066	1,607,807	35,936
United Kingdom—						
England.....	63,328,935	1,294,294	71,889,241	1,651,860	88,483,474	1,605,240
Scotland.....	8,676,295	184,540	11,973,909	272,553	13,813,029	259,818
Ireland.....	3,191,624	67,875	4,382,213	103,117	5,227,103	97,629
Other countries.....	1,369,234	30,634	1,837,709	44,661	5,323,067	109,847
Total.....	92,652,409	1,938,406	112,730,639	2,623,131	137,461,782	2,596,220
Grape sugar—						
Australia, Commonwealth of.....	314,150	7,131	556,380	14,915	856,340	20,509
Canada.....	128,883	3,437	95,065	2,618	518,113	11,528
United Kingdom—						
England.....	17,516,962	363,098	34,798,723	738,322	40,559,555	714,850
Scotland.....	1,454,388	30,662	1,326,800	28,352	1,316,560	24,230
Other countries.....	127,712	3,355	312,481	7,852	1,250,696	28,046
Total.....	19,572,095	407,683	37,089,449	792,089	44,501,264	799,163

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Glucose and grape sugar—Con.						
Total glucose and grape sugar—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Argentina.....	3,261,255	80,334	5,178,395	125,685	5,419,746	110,322
Australia, Commonwealth of.....	5,817,350	122,716	5,722,397	150,021	7,768,832	174,945
Austria-Hungary.....	312,894	6,461	1,317,445	29,509	2,119,714	41,444
Belgium.....	820,054	17,134	1,432,274	33,440	1,127,359	23,553
British South Africa.....	1,203,428	28,549	2,030,382	53,663	2,012,105	45,557
Canada.....	1,619,952	39,713	3,573,134	74,021	1,960,201	37,026
Cuba.....	615,565	14,918	648,834	17,003	662,685	14,821
Germany.....	882,196	17,855	1,092,669	24,258	962,170	19,446
Netherlands.....	85,021	1,913	248,991	5,467	1,007,542	20,428
New Zealand.....	1,103,062	21,585	1,332,557	35,066	1,620,007	36,248
United Kingdom—						
England.....	80,845,897	1,657,392	106,687,964	2,390,182	129,043,029	2,320,090
Scotland.....	10,160,683	215,202	13,300,709	300,945	15,129,589	284,048
Ireland.....	3,191,624	67,875	4,382,213	103,117	5,227,103	97,629
Other countries.....	2,305,523	54,442	2,872,124	72,843	7,902,964	169,826
Total.....	112,224,504	2,346,089	149,820,088	3,415,220	181,963,046	3,395,383
Grain and grain products:						
Grain—						
Barley—	<i>Bushels.</i>	<i>Dollars.</i>	<i>Bushels.</i>	<i>Dollars.</i>	<i>Bushels.</i>	<i>Dollars.</i>
Belgium.....	67,966	50,401	20,020	12,012	343,595	184,687
Canada.....	115,932	73,227	143,160	83,575	122,093	77,356
Canary Islands.....	95,200	68,600	80,943	42,000	371,182	213,093
Mexico.....	255,982	196,706	139,837	107,174	165,617	130,081
Netherlands.....	139,788	87,258	159,979	91,122		
Portuguese Africa.....	290,799	209,575			550,263	315,429
United Kingdom—						
England.....	3,942,941	2,775,488	2,356,708	1,694,933	4,137,666	2,302,710
Scotland.....	323,048	206,138	139,775	101,644	439,430	249,305
Ireland.....	1,088,191	795,374	1,265,644	916,226	3,185,649	1,854,252
Other countries.....	260,546	209,399	5,500	3,841	83,851	54,447
Total.....	6,580,393	4,672,166	4,311,566	3,052,527	9,399,346	5,381,360
Buckwheat—						
Germany.....	105,511	76,826	99,269	63,236		
Netherlands.....	80,788	60,117	48,651	32,423		
Other countries.....	403	470	10,240	7,479	223	186
Total.....	186,702	137,413	158,160	103,138	223	186
Corn—						
Belgium.....	1,885,070	1,303,834	1,143,587	777,787	2,681,353	1,456,094
Bermuda.....	35,107	29,784	35,110	27,884	40,411	27,870
British Guiana.....	8,121	6,920	8,719	7,006	10,236	6,967
British Honduras.....	5,872	5,034	3,084	2,320	17,065	10,947
British South Africa.....	8,665	6,695				
British West Indies—						
Barbados.....					55,254	36,370
Jamaica.....					259,087	167,204
Trinidad and Tobago.....	334,423	272,313	341,021	270,538	9,936	6,487
Other British.....					40,127	27,340
Canada.....	4,786,223	3,432,081	6,178,896	4,048,006	13,409,580	7,289,843
Colombia.....	814	660	249	211	460	318
Costa Rica.....	24,778	20,807	69,269	50,273	21,653	13,018
Cuba.....	1,723,696	1,335,700	2,376,974	1,661,144	2,225,073	1,322,095
Denmark.....	1,678,993	1,150,366	2,450,545	1,659,721	3,082,915	1,663,327
Dutch West Indies.....	11,494	11,078	1,347	1,131	9,649	6,315
Egypt.....	45,000	40,000				
France.....	234,226	166,245	446,469	304,616	1,626,286	863,368
French West Indies.....	29,966	25,690	26,504	21,879	51,603	19,768
Germany.....	4,532,645	3,202,936	4,537,064	3,134,805	7,971,321	4,295,474
Honduras.....	8,570	7,021	10,136	7,612	6,316	3,908
Mexico.....	70,178	51,707	3,258,158	2,488,916	7,066,947	4,867,031

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Grain and grain products—Continued.						
Grain—Continued.						
Corn—Continued.	<i>Bushels.</i>	<i>Dollars.</i>	<i>Bushels.</i>	<i>Dollars.</i>	<i>Bushels.</i>	<i>Dollars.</i>
Netherlands.....	5,187,982	3,611,341	5,185,092	3,518,258	7,147,151	3,938,180
Newfoundland and Labrador.....	11,764	9,521	16,983	12,301	11,523	6,421
Nicaragua.....	9,643	7,783	2,988	2,381	2,452	1,513
Norway.....	25,714	17,486	.....	.....	68,571	36,828
Panama.....	18,373	14,893	20,600	15,042	38,469	24,009
Salvador.....	15,260	16,368	3,597	4,081	.....	.....
United Kingdom—						
England.....	10,958,858	7,556,901	7,676,876	5,325,684	13,267,753	7,358,433
Scotland.....	2,501,066	1,737,169	2,099,520	1,462,656	2,495,879	1,350,293
Ireland.....	1,688,287	1,143,234	891,416	609,559	1,959,802	1,023,110
Other countries.....	12,624	10,899	18,170	14,182	204,586	138,948
Total.....	35,853,412	25,194,466	36,802,374	25,427,993	63,761,458	35,961,479
Oats—						
British Guiana.....	1,205	762	3,726	1,849	13,170	5,571
British West Indies—						
Barbados.....	.....	.....	.....	.....	32,657	13,987
Jamaica.....	.....	.....	.....	.....	20,545	9,169
Trinidad and Tobago.....	45,167	26,180	91,364	49,607	38,566	17,307
Other British.....	.....	.....	.....	.....	13,744	6,545
Canada.....	56,214	26,085	11,743	5,603	22,633	8,778
Cuba.....	119,428	69,624	255,577	124,801	246,419	100,088
Mexico.....	39,313	23,462	51,026	28,538	52,084	25,686
Panama.....	83,877	50,090	98,434	47,851	110,299	48,034
Philippine Islands.....	817,483	427,818	601,685	288,471	469,117	215,497
United Kingdom—						
England.....	283,483	143,146	470,685	198,248	913,720	332,079
Other countries.....	64,150	37,592	101,234	49,399	111,958	49,977
Total.....	1,510,320	804,759	1,685,474	794,367	2,044,912	832,718
Rye—						
Belgium.....	87,984	73,382	21,429	19,757	.....	.....
Canada.....	27,452	21,259	1,081	1,414	1,192	1,079
Denmark.....	112,789	96,114	.....	.....	.....	.....
Germany.....	98,304	82,903	.....	.....	.....	.....
Netherlands.....	116,626	98,747	.....	.....	.....	.....
United Kingdom—						
England.....	553,438	447,572	66,571	48,500	.....	.....
Scotland.....	155,486	127,764	112,252	84,317	.....	.....
Ireland.....	77,143	65,572	17,143	13,400	.....	.....
Other countries.....	43,337	36,496	1,280	1,278	1,431	1,424
Total.....	1,272,559	1,049,809	219,756	168,666	2,623	2,503
Wheat—						
Azores and Madeira Is.....	32,406	35,908	38,954	43,793	.....	.....
Belgium.....	8,658,678	8,986,309	5,976,110	6,369,392	2,470,787	2,452,851
British South Africa.....	660	900	39,919	44,658	.....	.....
Canada.....	877,942	878,342	2,111,370	2,317,191	1,256,783	1,242,707
Colombia.....	63,791	87,166	119,732	151,631	242,958	272,189
Costa Rica.....	6,188	7,150	5,858	6,654	36,018	37,390
Denmark.....	1,095,974	1,156,279	839,499	896,075	198,220	204,618
Egypt.....	271,843	256,893	.....	.....	110,063	95,755
France.....	3,751,877	3,846,899	855,668	864,009	3,648,407	3,611,088
Germany.....	9,413,298	9,888,847	5,367,325	5,639,462	721,240	711,558
Greece.....	837,063	869,282	11,987	11,987	36	40
Guatemala.....	936	936	6	8	18	20
Hongkong.....	.....	.....	.....	.....	39,193	34,126
Italy.....	5,894,595	6,125,987	1,960,044	1,967,322	286,171	283,478
Japan.....	66,691	62,620	127,498	117,611	2,048,382	1,744,469
Malta and Cyprus.....	360,665	360,435	.....	.....	.....	.....
Mexico.....	1,448,486	1,483,055	3,179,096	3,248,483	273,313	269,772
Netherlands.....	6,653,412	6,772,007	2,695,362	2,930,602	890,221	885,172

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Grain and grain products—Continued.						
<i>Wheat—Continued.</i>						
Norway.....	<i>Bushels.</i> 79,200	<i>Dollars.</i> 81,160	147,060	160,028		
Peru.....	186,686	184,903	329,786	331,432	79,745	70,822
Portugal.....	1,126,523	1,248,408	7,863	8,649	100,000	98,000
Portuguese Africa.....	1,258,251	1,144,845	413,223	374,491		
United Kingdom—						
England.....	23,221,286	22,954,874	20,038,686	19,877,603	9,678,970	8,532,867
Scotland.....	862,549	881,047	575,041	628,025	428,057	421,511
Ireland.....	373,953	369,415	1,779,634	1,754,123	1,191,003	1,043,924
Venezuela.....	106,628	127,775				
Other countries.....	273,699	283,005	60,155	63,369	29,717	27,916
Total.....	66,923,244	68,004,447	46,679,876	47,806,598	23,729,302	22,040,273
Grain products—						
Corn meal—						
Bermuda.....	<i>Barrels.</i> 3,297	<i>Dollars.</i> 12,119	2,705	9,361	3,171	9,573
British Guiana.....	4,783	17,545	5,383	18,759	6,509	20,147
British West Indies—						
Barbados.....					37,164	107,826
Jamaica.....					50,455	146,779
Trinidad and Tobago.....	105,573	366,264	98,898	330,907	8,526	24,916
Other British.....					33,445	100,779
Canada.....	32,372	105,745	31,241	104,200	43,259	127,441
Cuba.....	5,552	20,599	8,677	31,057	8,369	24,709
Danish West Indies.....	15,252	54,333	16,115	53,000	16,691	49,350
Denmark.....	135,811	462,224	20,236	68,859	13,208	43,757
Dutch West Indies.....	27,038	101,691	18,166	61,461	27,511	81,140
Germany.....	19,468	65,594	48,134	180,201	63,032	206,041
Netherlands.....	8,829	30,791	8,038	33,670	6,774	24,617
Newfoundland and Labrador.....	5,708	19,384	8,285	28,630	7,201	23,024
United Kingdom—						
England.....	59,993	192,868	47,757	164,816	108,097	370,257
Scotland.....	18,441	59,416	7,556	26,162	18,675	59,671
Ireland.....	1,020	3,570				
Other countries.....	9,710	36,867	10,340	36,485	11,179	36,656
Total.....	452,907	1,549,010	331,531	1,147,568	463,266	1,456,683
Oatmeal—						
Argentina.....	<i>Pounds.</i> 635,269	<i>Dollars.</i> 28,555	592,932	27,685	624,491	30,137
Australia, Commonwealth of.....	280,548	13,270	162,242	6,999	102,110	4,914
British India.....	631,539	32,945	462,900	24,221	939,327	45,562
British South Africa.....	134,136	6,392	37,771	1,633	65,053	2,833
British West Indies—						
Barbados.....					68,912	3,045
Jamaica.....					250,991	9,654
Trinidad and Tobago.....	420,642	14,319	382,551	14,372	35,766	1,689
Other British.....					40,540	1,828
Denmark.....	129,300	3,908	1,006,820	31,432	1,863,843	54,243
Germany.....	892,975	23,835	204,880	6,642	1,245,547	36,156
Netherlands.....	2,928,857	97,812	4,142,438	127,650	7,067,730	219,403
Norway.....	276,330	8,192	1,616,750	47,993	888,245	26,621
Russia, European.....	349,250	9,782	1,383,033	41,016	362,205	11,092
Straits Settlements.....	49,558	2,567	63,197	3,091	91,901	4,401
United Kingdom—						
England.....	6,131,139	196,092	2,968,088	91,822	12,928,881	402,677
Scotland.....	501,360	17,077	368,200	11,630	2,224,740	61,848
Ireland.....	160,450	4,815	730,800	21,924	1,716,260	46,664
Other countries.....	1,301,591	56,963	1,415,933	63,648	1,900,350	81,100
Total.....	14,822,944	516,524	15,538,535	521,658	32,416,892	1,043,867
Rye flour.....	<i>Barrels.</i> 3,857	<i>Dollars.</i> 14,600	3,751	15,240	6,250	24,182
Wheat flour—						
Bermuda.....	5,388	26,985	2,368	13,119	1,040	5,409
Belgium.....	12,430	61,519	13,451	74,860	10,991	62,388

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
<i>Grain and grain products—Continued.</i>						
<i>Grain products—Continued.</i>						
<i>Wheat flour—Continued.</i>	<i>Barrels.</i>	<i>Dollars.</i>	<i>Barrels.</i>	<i>Dollars.</i>	<i>Barrels.</i>	<i>Dollars.</i>
Brazil.....	291,594	1,671,503	359,708	2,104,509	520,084	2,840,788
British Guiana.....	123,438	592,319	110,818	585,929	113,974	533,494
British Honduras.....	23,692	124,716	24,349	139,197	27,674	134,946
British South Africa.....	2,648	13,106	8,492	47,967	9,999	52,194
British West Africa.....	31,471	172,495	30,167	177,676	43,187	235,834
British West Indies—						
Barbados.....					37,213	161,407
Jamaica.....					160,559	742,774
Trinidad and Tobago.....	584,452	2,709,215	460,758	2,377,727	122,029	580,809
Other British.....					113,394	497,153
Canada.....	46,096	216,204	49,951	235,866	42,947	189,490
Chile.....	809	4,065	4,271	20,068	18,034	67,172
China.....	66,773	249,165	21,243	93,164	292,738	1,089,258
Colombia.....	33,450	182,237	25,826	148,404	23,197	122,252
Costa Rica.....	71,355	365,411	60,749	329,480	74,465	364,090
Cuba.....	752,575	3,819,747	791,850	4,638,414	846,685	4,268,658
Danish West Indies.....	23,090	116,407	21,097	112,371	25,231	121,023
Denmark.....	210,656	1,156,072	192,344	1,085,209	242,849	1,313,612
Dutch Guiana.....	34,084	166,151	36,500	190,279	37,846	176,911
Dutch West Indies.....	21,734	111,410	20,021	108,310	21,818	106,658
Ecuador.....	53,024	247,797	60,737	295,138	68,399	313,396
Egypt.....	54,984	245,310	7,528	44,435	40,139	185,750
Finland.....	(¹)	(¹)	(¹)	(¹)	208,519	1,104,050
France.....	200	900	714	3,570	4,353	18,460
French Africa.....	3,207	18,368	4,992	29,592	3,280	18,262
French Guiana.....	16,363	105,729	14,037	79,658	14,250	73,690
French Oceania.....	16,156	81,543	19,645	106,227	18,354	87,957
French West Indies.....	73,778	376,351	53,879	293,851	70,236	327,739
Germany.....	350,136	1,755,513	233,899	1,310,187	226,227	1,219,028
Gibraltar.....	31,063	140,324	13,500	73,530	32,576	144,821
Guatemala.....	87,932	406,417	76,043	349,717	92,273	403,472
Haiti.....	147,664	829,019	166,143	957,539	182,019	974,361
Honduras.....	27,204	138,358	28,272	152,710	31,966	154,550
Hongkong.....	892,151	3,534,950	668,692	2,790,649	1,003,529	3,946,029
Italy.....	7,266	41,456	9,030	54,519	13,288	82,664
Japan.....	275,573	1,030,188	217,758	917,916	458,397	1,745,596
Japanese China.....	5,000	17,250				
Korea.....	697	3,528	712	3,716	587	2,429
Malta and Cyprus.....	10,944	54,728	2,686	12,775	2,282	10,190
Mexico.....	29,182	150,424	28,469	157,318	32,165	157,882
Netherlands.....	940,007	4,967,019	739,146	4,107,191	860,560	4,766,501
Newfoundland and Labrador.....	72,214	341,543	61,927	323,740	72,895	398,814
Nicaragua.....	39,227	192,259	53,423	270,919	51,700	234,803
Norway.....	161,308	872,055	150,431	856,668	168,968	905,797
Panama.....	100,862	531,070	108,862	597,151	134,148	674,203
Peru.....	50,349	235,966	109,196	494,110	190,435	770,064
Philippine Islands.....	80,088	326,805	250,442	1,049,611	226,629	887,376
Portuguese Africa.....	4,292	23,854	4,664	27,576	5,355	29,177
Russia, Asiatic.....	84,243	325,595	30,801	141,064	469	2,689
Russia, European ²	245,631	1,303,200	184,335	1,034,276	11,887	68,202
St. Pierre and Miquelon.....	3,106	16,777	2,137	11,088	250	1,250
Salvador.....	59,236	250,037	63,942	284,429	63,254	261,145
Santo Domingo.....	52,821	294,853	58,476	343,110	66,281	370,869
Spain.....	825	4,500	589	3,481	1,078	5,922
Straits Settlements.....	55,825	214,056	21,073	88,289	3,000	12,153
Sweden.....	23,104	123,889	62,314	357,750	24,864	130,318
Turkey, European.....	15,551	84,790	389	2,316	2,595	14,171
United Kingdom—						
England.....	2,492,029	11,744,206	1,895,397	9,924,678	1,586,645	8,145,741
Scotland.....	1,120,075	5,819,286	894,031	4,974,735	895,215	4,775,003
Ireland.....	413,401	2,094,274	372,007	1,883,424	309,138	1,489,014
Venezuela.....	74,585	384,614	120,617	642,265	140,869	694,518
Other countries.....	14,123	69,838	16,059	88,000	24,407	113,170
Total.....	10,521,161	51,157,366	9,040,987	47,621,467	10,129,435	49,386,946

¹ Included in "Russia, European."² Including "Finland," prior to July 1, 1910.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Grain and grain products—Continued.						
Grain products—Continued.						
Bran, middlings, and mill feed—	<i>Long tons.</i>	<i>Dollars.</i>	<i>Long tons.</i>	<i>Dollars.</i>	<i>Long tons.</i>	<i>Dollars.</i>
Belgium.....	195	5,525	1,275	30,076	15	415
Bermuda.....	323	10,303	187	6,082	245	8,265
Brazil.....	562	15,405	362	10,512	382	10,694
British West Indies—						
Barbados.....					116	3,202
Jamaica.....					70	1,993
Trinidad and Tobago..	2,199	63,582	762	21,549	203	5,527
Other British.....					179	5,341
Canada.....	2,396	61,243	2,581	76,590	4,680	114,617
Cuba.....	6,104	155,241	4,822	138,508	3,909	103,065
Denmark.....	1,866	52,629	2,123	59,628	7,029	196,104
Germany.....	26,945	717,120	34,884	979,419	42,168	1,190,736
Mexico.....	1,553	43,721	453	13,157	955	25,825
Netherlands.....	294	8,013	2,385	71,065	5,136	159,029
Newfoundland and Labrador.....	1,359	34,795	802	24,453	977	26,708
United Kingdom—						
England.....	1,150	32,695	1,890	60,449	472	12,693
Scotland.....			31	806	3	100
Ireland.....	76	2,170	224	5,798	156	3,900
Other countries.....	715	19,964	767	23,530	992	27,341
Total.....	45,737	1,222,406	53,548	1,521,622	67,687	1,895,555
Malt—	<i>Bushels.</i>	<i>Dollars.</i>	<i>Bushels.</i>	<i>Dollars.</i>	<i>Bushels.</i>	<i>Dollars.</i>
Canada.....	35,147	28,705	75,070	58,541	44,436	37,240
Guatemala.....	22,044	19,047	12,236	10,428	13,426	11,582
Mexico.....	63,654	65,116	47,213	40,128	36,718	33,171
Peru.....	26,624	25,258	16,766	15,265	16,669	14,584
Other countries.....	10,761	9,132	5,212	4,726	6,633	6,522
Total.....	163,230	147,258	156,497	129,088	117,882	103,099
Distillers' and brewers' grains and malt sprouts—	<i>Long tons.</i>	<i>Dollars.</i>	<i>Long tons.</i>	<i>Dollars.</i>	<i>Long tons.</i>	<i>Dollars.</i>
Belgium.....	18,179	441,399	17,597	421,471	14,942	366,257
Denmark.....	113	2,220	129	2,631	134	2,700
Germany.....	36,700	865,086	30,786	795,668	28,156	687,335
Netherlands.....	20,382	446,528	16,395	405,503	32,231	827,529
Other countries.....	129	3,171	590	15,128	1,340	30,397
Total.....	75,503	1,758,404	65,497	1,640,401	76,803	1,914,218
Bread and biscuit—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Bermuda.....	114,871	7,494	123,002	8,819	128,676	9,314
British Guiana.....	365,143	14,815	463,817	19,649	235,746	9,967
British Honduras.....	249,225	15,620	275,624	19,299	296,600	22,290
British West Africa.....	19,366	862	42,036	2,233	43,191	2,214
British West Indies—						
Barbados.....					477,444	18,711
Jamaica.....					3,684,907	169,679
Trinidad and Tobago..	5,504,714	275,760	5,531,899	273,215	502,250	23,393
Other British.....					1,163,523	54,000
Canada.....	374,280	17,908	226,615	12,769	630,702	30,322
Colombia.....	377,201	26,240	335,968	29,715	403,930	36,302
Cuba.....	364,617	28,808	319,760	27,914	389,931	33,494
Dutch Guiana.....	374,353	19,445	398,867	19,299	375,823	18,861
Dutch West Indies.....	434,308	22,238	434,014	20,918	421,683	21,649
French Oceania.....	330,509	14,660	507,207	26,005	561,215	30,863
French West Indies.....	354,239	16,513	340,871	20,008	403,849	24,514
Mexico.....	387,430	34,682	335,661	30,064	282,042	27,489
Panama.....	1,148,915	72,517	1,277,223	89,931	1,169,870	81,374
Venezuela.....	651,587	36,489	758,907	44,242	952,196	49,507
Other countries.....	1,555,856	106,636	1,693,217	123,071	1,898,514	136,125
Total.....	12,606,614	710,687	13,064,688	767,151	14,022,692	800,068

1 Or "Distillery and brewery refuse."

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
Vegetable matter—Continued.						
Grain and grain products—Continued.						
Grain products—Continued.						
Breadstuff preparations other than bread and biscuit—						
Australia, Commonwealth of.....		Dollars. 56,334		Dollars. 74,373		Dollars. 69,737
Belgium.....		26,138		35,145		36,058
Bermuda.....		6,993		13,295		15,253
Brazil.....		23,004		26,885		37,029
British India.....		5,599		7,003		5,178
British West Indies—						
Barbados.....						2,271
Jamaica.....						15,784
Trinidad and Tobago.....		57,267		62,807		4,096
Other British.....						66,577
British South Africa.....		53,322		51,705		63,401
Canada.....		261,889		329,560		323,976
China.....		28,268		32,859		27,196
Colombia.....		8,444		8,959		11,358
Cuba.....		104,560		52,374		97,638
Denmark.....		33,973		35,263		49,214
Ecuador.....		5,945		14,097		8,057
France.....		8,211		6,018		20,637
French Guiana.....		137		385		39
Germany.....		65,055		194,980		245,140
Guatemala.....		7,714		10,716		8,572
Hongkong.....		21,614		25,657		17,440
Japan.....		16,658		21,546		45,647
Mexico.....		130,923		153,456		174,426
Netherlands.....		51,466		49,516		76,236
Newfoundland and Labrador.....		2,928		9,225		6,217
New Zealand.....		18,461		30,539		36,928
Panama.....		33,271		36,011		43,980
Philippine Islands.....		34,249		38,225		28,784
Santo Domingo.....		23,170		15,325		12,100
Straits Settlements.....		996		704		685
Sweden.....		1,115		2,428		6,130
United Kingdom—						
England.....		587,144		486,954		579,772
Scotland.....		44,837		76,765		68,173
Ireland.....		18,853		2,689		28,297
Venezuela.....		3,968		5,731		8,434
Other countries.....		116,140		129,119		122,099
Total.....		1,858,646		2,040,314		2,362,559
Other grain products—						
Belgium.....		1,575		6,370		1,530
British West Indies—						
Barbados.....						1,524
Jamaica.....						2,519
Trinidad and Tobago.....		8,152		14,530		3,220
Other British.....						4,814
Canada.....		52,450		67,294		76,782
Cuba.....		12,620		19,964		21,495
Denmark.....		31		15,260		3,510
Germany.....		821,352		174,112		599,108
Mexico.....		4,806		27,728		35,363
Netherlands.....		89,248		10,203		27,432
Newfoundland and Labrador.....		2,080		4,612		10,795
Sweden.....		19,154		64,427		110,159
United Kingdom—						
England.....		155,854		122,240		126,092
Scotland.....		2,766		7,550		4,632
Ireland.....		650		6,010		4,093
Other countries.....		17,780		22,320		24,072
Total.....		1,188,518		562,620		1,057,140

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Grain and grain products—Continued.						
Grain products—Continued.						
Total grain and grain products—		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
Argentina.....		32,212		36,861		36,689
Australia, Commonwealth of.....		78,073		82,088		76,621
Austria-Hungary.....		13,477		20,167		22,752
Azores, and Madeira Is.....		38,088		46,361		16,358
Belgium.....	10,952,398		7,749,814		4,567,096	
Bermuda.....		105,706		93,268		86,562
Brazil.....	1,721,887		2,170,954		2,916,292	
British India.....		39,558		31,297		50,970
British Guiana.....		638,693		638,843		580,962
British Honduras.....		154,253		169,816		179,364
British South Africa.....		81,438		147,763		121,644
British West Africa.....		174,309		180,827		239,613
British West Indies—						
Barbados.....						348,343
Jamaica.....						1,265,587
Trinidad and Tobago.....		3,999,577		3,416,085		667,506
Other British.....						764,450
Canada.....		5,186,352		7,350,248		9,537,047
Canary Islands.....		68,890		42,178		225,371
Chile.....		14,326		33,663		81,359
China.....		281,063		129,637		1,132,866
Colombia.....		312,232		341,161		444,117
Costa Rica.....		422,078		418,056		455,760
Cuba.....		5,554,451		6,709,715		5,989,173
Danish West Indies.....		185,291		185,271		189,028
Denmark.....		4,113,876		3,854,078		3,531,085
Dutch Guiana.....		189,274		220,599		199,610
Dutch West Indies.....		251,016		196,907		222,324
Ecuador.....		254,776		309,779		321,838
Egypt.....		545,829		49,353		282,754
Finland.....		(1)		(1)		1,111,128
France.....		4,025,816		1,179,203		4,516,855
French Africa.....		19,459		78,220		18,918
French Guiana.....		115,874		91,232		81,956
French Oceania.....		104,779		142,580		125,885
French West Indies.....		424,269		341,878		379,919
Germany.....		17,565,432		12,479,331		9,191,869
Gibraltar.....		300,327		74,408		145,519
Guatemala.....		438,974		376,838		491,344
Haiti.....		842,023		971,672		997,692
Honduras.....		164,559		176,310		181,609
Hongkong.....		3,563,228		2,817,524		4,000,476
Italy.....		6,171,176		2,025,619		404,407
Japan.....		1,114,395		1,058,667		3,537,828
Japanese China.....		17,278				
Korea.....		7,713		10,126		7,615
Malta and Cyprus.....		415,492		13,099		10,656
Mexico.....		2,193,870		6,306,271		5,764,267
Netherlands.....		16,320,347		11,382,498		10,926,467
Newfoundland and Labrador.....		411,663		405,659		473,724
New Zealand.....		20,856		31,677		88,034
Nicaragua.....		208,335		297,482		253,795
Norway.....		1,024,328		1,078,485		986,852
Panama.....		728,298		807,499		889,103
Peru.....		473,745		860,215		877,790
Philippine Islands.....		802,129		1,395,824		1,144,347
Portugal.....		1,268,145		32,473		114,388
Portuguese Africa.....		1,397,467		420,674		367,381
Russia, Asiatic.....		331,531		147,679		7,651
Russia, European ¹		1,318,470		1,081,208		79,888
St. Pierre Miquelon.....		16,884		12,942		6,743
Salvador.....		273,914		295,591		268,264
Santo Domingo.....		338,285		384,057		408,631
Spain.....		114,560		5,082		13,030

¹ Included in "Russia, European."² Including "Finland" prior to July 1, 1910.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Grain and grain products—Continued.						
Grain products—Continued.						
Total grain and grain products—Continued.		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
Straits Settlements.....		217,619		98,084		17,239
Sweden.....		152,076		424,605		246,607
Turkey, European.....		84,820		2,400		14,512
United Kingdom—						
England.....		46,788,111		38,003,796		28,175,184
Scotland.....		8,896,594		7,376,338		7,001,347
Ireland.....		4,498,782		5,214,887		5,495,848
Venezuela.....		554,328		694,663		758,467
Other countries.....		942,425		98,833		126,460
Total.....		160,076,479		133,320,418		124,262,836
Hay:	<i>Long tons.</i>	<i>Dollars.</i>	<i>Long tons.</i>	<i>Dollars.</i>	<i>Long tons.</i>	<i>Dollars.</i>
Belgium.....	300	4,757	89	1,737	212	4,183
British West Indies—						
Barbados.....					8	188
Jamaica.....					118	2,293
Trinidad and Tobago.....					53	1,131
Other British.....	253	4,589	232	5,010	148	2,938
Canada.....	6,994	119,578	6,141	126,878	14,198	266,572
Cuba.....	4,960	75,278	2,213	43,363	564	10,772
Mexico.....	15,594	204,401	13,073	185,187	16,098	259,569
Panama.....	2,208	40,846	1,763	34,184	2,476	51,204
Philippine Islands.....	14,730	366,266	12,916	318,804	8,108	179,248
United Kingdom—						
England.....	18,243	308,018	17,299	329,163	11,017	211,856
Scotland.....	258	4,053	12	210	318	6,130
Other countries.....	1,101	19,967	1,269	26,371	1,905	36,507
Total.....	64,641	1,147,753	55,007	1,070,907	55,223	1,032,591
Hops:	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Australia, Commonwealth of.....	403,371	52,738	293,404	63,963	536,431	80,755
Canada.....	701,920	89,206	634,247	141,589	634,629	115,509
New Zealand.....	26,197	3,400	24,853	6,934	26,336	4,464
Unred Kingdom—						
England.....	9,102,018	1,098,995	9,448,592	1,814,949	11,504,311	1,858,365
Scotland.....	78,001	10,919	80,969	12,914	277,598	47,867
Ireland.....	38,983	3,898				
Other countries.....	96,394	12,473	107,189	21,791	125,469	24,012
Total.....	10,446,884	1,271,629	10,589,254	2,062,140	13,104,774	2,130,972
Liquors, alcoholic:						
Spirits, distilled—						
Alcohol, ¹ including cognac spirits—	<i>Proof galls.</i>	<i>Dollars.</i>	<i>Proof galls.</i>	<i>Dollars.</i>	<i>Proof galls.</i>	<i>Dollars.</i>
Canada.....	54,091	11,891	158,325	27,742	3,532	1,928
Honduras.....	14,111	4,753	36	32	1,038	514
Other countries.....	35,730	20,075	72,716	36,619	30,661	17,378
Total.....	103,932	36,719	231,077	64,393	35,231	19,820
Brandy.....	14,718	12,262	(²)	(²)	(²)	(²)
Rum—						
British West Africa.....	725,266	992,446	762,923	1,017,064	743,688	991,624
China.....	18,209	4,418	23,748	7,115	20,769	5,960
Germany.....	18,061	24,257	15,751	21,492	34,085	46,164
Turkey, Asiatic.....	3,782	5,107	4,485	6,061	9,882	13,834
Turkey, European.....	5,834	7,825	26,065	35,806	4,953	7,349
United Kingdom—						
England.....	143,870	191,454	283,720	371,474	272,628	380,140
Other countries.....	11,027	11,611	21,436	15,749	43,573	31,076
Total.....	926,049	1,237,118	1,138,128	1,474,761	1,129,578	1,476,147

¹ Excluding wood alcohol.² Included in "Other distilled spirits."

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Liquors, alcoholic—Contd.						
Spirits, distilled—Contd.						
Whisky—						
Bourbon—	<i>Proof galls.</i>	<i>Dollars.</i>	<i>Proof galls.</i>	<i>Dollars.</i>	<i>Proof galls.</i>	<i>Dollars.</i>
Canada.....	3,555	6,797	1,547	3,334	323	683
Germany.....	280,790	277,460	.....	.....	14	38
Guatemala.....	3,331	8,891	2,071	4,290	1,883	3,579
Mexico.....	17,790	27,558	13,241	21,595	20,606	33,133
Nicaragua.....	2,530	3,337	6,002	8,289	8,378	10,429
Philippine Islands.....	14,599	26,325	17,401	31,694	13,900	18,168
Other countries.....	9,314	15,078	6,039	11,011	13,355	20,684
Total.....	331,909	365,446	46,301	80,213	58,459	86,714
Rye—						
China.....	1,974	3,671	597	902	90	210
Colombia.....	693	1,234	450	905	744	1,708
Germany.....	28,006	28,608	78,738	85,694	30,545	36,993
Honduras.....	1,420	3,364	2,421	5,991	2,867	6,773
Mexico.....	16,199	37,063	18,311	41,800	16,807	39,297
Panama.....	12,880	29,526	16,586	35,676	22,689	46,508
Philippine Islands.....	28,037	40,885	32,674	60,578	21,083	43,941
United Kingdom—						
England.....	4,888	9,393	850	2,330	2,426	4,600
Scotland.....	272	770	236	696	320	880
Ireland.....	.....	.....	.....	.....	3	12
Other countries.....	26,951	55,517	31,139	66,472	35,876	70,531
Total.....	121,320	210,031	182,002	301,044	133,450	251,453
Other distilled spirits—						
China.....	273	691	1,027	1,267	423	541
Mexico.....	3,417	6,855	7,563	13,788	4,678	8,241
Other countries.....	7,514	14,845	29,532	42,540	37,145	42,575
Total.....	11,204	22,391	38,122	57,595	42,246	51,357
Total distilled spirits—						
British Honduras.....	6,490	7,482	8,401	10,003	18,402	22,359
British West Africa.....	725,266	992,446	762,923	1,017,064	743,688	991,624
Canada.....	67,129	32,010	173,150	45,185	22,155	25,380
China.....	20,608	9,130	25,517	9,438	21,537	6,907
Colombia.....	1,173	1,521	836	1,217	2,262	2,760
Germany.....	338,616	336,926	109,773	121,858	67,475	85,285
Guatemala.....	4,847	11,723	4,096	8,315	6,024	11,508
Honduras.....	16,163	9,248	4,096	9,557	4,688	8,373
Japan.....	648	1,211	5,935	3,190	19,069	6,041
Mexico.....	38,672	72,786	40,343	77,554	42,214	81,022
Nicaragua.....	4,586	7,822	28,645	26,533	15,327	18,660
Panama.....	20,759	42,210	33,821	50,686	30,534	54,125
Philippine Islands.....	50,532	75,844	60,448	107,732	45,802	75,665
Salvador.....	1,265	3,503	2,952	5,988	3,091	6,707
Turkey, Asiatic.....	3,782	5,107	4,485	6,061	9,882	13,834
Turkey, European.....	5,834	7,825	26,065	35,806	5,153	7,849
United Kingdom—						
England.....	149,324	202,072	286,936	376,635	288,474	395,827
Scotland.....	616	1,656	236	696	406	1,019
Ireland.....	.....	.....	.....	.....	3	12
Other countries.....	52,822	63,445	56,972	64,488	52,778	70,034
Total.....	1,509,132	1,883,967	1,635,630	1,978,006	1,398,964	1,885,491
Malt liquors—						
Bottled—	<i>Doz. quarts.</i>	<i>Dollars.</i>	<i>Doz. quarts.</i>	<i>Dollars.</i>	<i>Doz. quarts.</i>	<i>Dollars.</i>
British Honduras.....	7,334	12,851	5,708	8,711	6,981	9,713
British West Indies—						
Barbados.....	.....	.....	.....	.....	1,735	2,231
Jamaica.....	.....	.....	.....	.....	11,645	15,780
Trinidad and Tobago.....	.....	.....	.....	.....	22,088	32,966
Other British.....	.....	.....	.....	.....	2,406	3,283
Canada.....	197,987	280,428	221,295	324,659	296,083	440,265
China.....	7,090	11,031	1,048	1,251	2,600	3,695
Colombia.....	2,092	3,161	3,310	4,544	4,741	6,249
Costa Rica.....	9,063	15,537	8,777	13,549	11,794	16,391
Cuba.....	78,486	116,713	58,467	84,452	50,755	71,872

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Liquors, alcoholic—Contd.						
Malt liquors—Continued.						
Bottled—Continued.	<i>Doz. quarts.</i>	<i>Dollars.</i>	<i>Doz. quarts.</i>	<i>Dollars.</i>	<i>Doz. quarts.</i>	<i>Dollars.</i>
Hongkong.....	5,586	8,638	3,680	4,458	1,783	2,686
Japan.....	726	1,509	180	300	1,588	2,754
Mexico.....	14,913	21,357	8,779	12,455	10,168	15,750
Nicaragua.....	3,988	6,672	3,423	5,402	10,696	14,363
Panama.....	167,810	280,334	149,371	232,553	149,428	202,856
Peru.....	4,336	5,814	4,288	5,520	1,952	2,489
Philippine Islands.....	49,960	74,280	51,020	69,614	48,169	71,836
Salvador.....	1,463	2,474	234	351	325	513
Other countries.....	53,043	76,746	46,858	67,183	54,156	74,703
Total.....	635,361	964,992	596,883	877,324	689,093	990,395
Unbottled—	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>
Canada.....	222,949	38,440	326,221	53,894	357,180	59,543
Mexico.....	1,919	456	30,575	10,491	36,895	8,851
Other countries.....	21,657	6,899	33,681	9,474	57,619	16,770
Total.....	246,525	45,795	390,477	73,859	451,604	85,164
Total malt liquors—						
British Honduras.....		12,851		8,711		9,713
British West Indies—						
Barbados.....						2,231
Jamaica.....						20,648
Trinidad and Tobago.....						32,966
Other British.....		51,870		48,706		3,358
Canada.....		318,868		378,553		499,808
China.....		11,031		1,251		3,695
Colombia.....		3,221		4,544		6,835
Costa Rica.....		15,537		13,779		16,391
Cuba.....		117,174		84,471		72,264
Hongkong.....		8,638		4,458		2,686
Japan.....		1,509		300		2,754
Mexico.....		21,813		22,946		24,601
Nicaragua.....		6,672		5,407		14,363
Panama.....		280,352		232,717		203,491
Peru.....		5,814		5,520		2,489
Philippine Islands.....		74,280		69,614		79,326
Salvador.....		2,474		351		661
Other countries.....		78,683		69,855		77,279
Total.....		1,010,787		951,183		1,075,559
Vines—						
Bottled—	<i>Doz. quarts.</i>	<i>Dollars.</i>	<i>Doz. quarts.</i>	<i>Dollars.</i>	<i>Doz. quarts.</i>	<i>Dollars.</i>
Mexico.....	540	3,117	486	2,943	(1)	(1)
Other countries.....	3,299	16,785	5,476	28,371	(1)	(1)
Total.....	3,839	19,902	5,962	31,314	(1)	(1)
Unbottled—	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>
Belgium.....	2,072	1,018	4,715	2,604		
Canada.....	34,081	13,697	47,267	16,178		
China.....	4,672	2,168	3,377	1,731		
Colombia.....	15,401	7,262	11,949	4,233		
Ecuador.....	28,479	13,449	27,166	14,439		
French Oceania.....	15,338	5,781	9,758	3,376		
Germany.....	48,450	23,381	35,312	15,970		
Guatemala.....	16,966	8,720	17,849	8,058		
Honduras.....	15,656	6,648	4,829	2,128	(1)	(1)
Japan.....	34,823	13,089	61,171	18,378		
Mexico.....	70,526	29,667	79,575	32,245		
Panama.....	35,796	11,453	57,064	15,793		
Salvador.....	27,911	14,678	19,194	9,913		
United Kingdom—						
England.....	21,880	9,085	56,819	20,602		
Scotland.....	1,101	540	725	494		
Other countries.....	42,739	20,880	64,578	27,455		
Total.....	415,891	181,516	501,348	193,597	(1)	(1)

¹ Not separately stated.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Liquors, alcoholic—Continued.						
Wines—Continued.						
Total wines ¹ —	Gallars.	Dollars.	Gallons.	Dollars.	Gallons.	Dollars.
Belgium.....	2, 072	1, 018	4, 811	2, 768	21, 858	8, 806
Canada.....	36, 055	17, 237	51, 890	22, 739	85, 566	42, 158
China.....	4, 786	2, 348	3, 662	2, 142	22, 123	8, 490
Colombia.....	15, 440	7, 372	12, 012	4, 359	27, 966	12, 440
Ecuador.....	28, 785	13, 887	27, 712	15, 320	39, 036	18, 641
French Oceania.....	15, 371	5, 835	9, 758	3, 376	23, 093	6, 913
Germany.....	48, 984	24, 530	36, 032	17, 349	360, 931	123, 288
Guatemala.....	17, 314	9, 310	19, 151	10, 428	20, 623	10, 438
Honduras.....	16, 583	8, 020	5, 321	2, 814	8, 130	4, 491
Japan.....	35, 126	13, 652	61, 255	18, 540	229, 869	68, 837
Mexico.....	72, 146	32, 784	81, 033	35, 188	75, 189	29, 907
Panama.....	36, 231	11, 961	57, 496	16, 669	201, 718	56, 838
Salvador.....	28, 370	15, 401	19, 305	10, 132	29, 316	14, 905
United Kingdom—						
England.....	22, 015	9, 370	57, 587	22, 399	92, 415	33, 314
Scotland.....	1, 110	564	725	494	266	610
Ireland.....	6	10				
Other countries.....	47, 014	28, 119	71, 484	40, 194	155, 695	78, 460
Total.....	427, 408	201, 418	519, 234	224, 911	1, 394, 994	518, 636
Total alcoholic liquors—						
Bermuda.....		7, 988		10, 236		12, 462
British Honduras.....		21, 180		19, 621		32, 604
British West Africa.....		994, 425		1, 019, 621		994, 433
British West Indies—						
Barbados.....						2, 320
Jamaica.....						21, 969
Trinidad and Tobago.....						33, 235
Other British.....		55, 682		52, 661		6, 529
Canada.....	368, 115		446, 477			567, 346
China.....	22, 509		12, 831			19, 092
Colombia.....	12, 114		10, 120			22, 035
Costa Rica.....	19, 877		21, 023			21, 663
Cuba.....	133, 862		92, 971			91, 653
Ecuador.....	21, 669		20, 154			25, 235
France.....	4, 086		5, 506			14, 543
French Oceania.....	6, 494		4, 308			8, 824
Germany.....	363, 163		140, 791			209, 702
Guatemala.....	33, 050		30, 255			30, 833
Honduras.....	23, 423		18, 106			28, 233
Hongkong.....	10, 525		5, 438			4, 401
Japan.....	16, 372		22, 030			77, 632
Mexico.....	127, 383		135, 688			135, 530
Nicaragua.....	16, 462		35, 605			36, 461
Panama.....	334, 523		300, 072			314, 454
Peru.....	7, 609		8, 197			4, 398
Philippine Islands.....	153, 890		192, 998			161, 737
Salvador.....	21, 378		16, 471			22, 273
Turkey, Asiatic.....	10, 403		9, 167			18, 671
Turkey, European.....	7, 888		35, 806			8, 090
United Kingdom—						
England.....		215, 827		401, 196		430, 922
Scotland.....		2, 230		1, 190		1, 629
Ireland.....		10				12
Other countries.....		84, 035		87, 561		120, 665
Total.....		3, 096, 172		3, 154, 100		3, 479, 586
Nursery stock:						
Canada.....		171, 976		157, 683		214, 080
Cuba.....		37, 191		30, 723		20, 872
Germany.....		16, 614		14, 841		10, 465
Mexico.....		33, 779		42, 732		32, 353
Netherlands.....		18, 221		14, 897		21, 045

¹ Quantity for 1909 and 1910 computed by estimating 3 gallons to 1 dozen quarts.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Nursery stock—Continued.						
United Kingdom—		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
England.....		23,415		26,819		14,067
Scotland.....		120		1,478		1,209
Ireland.....				28		104
Other countries.....		16,511		35,435		23,793
Total.....		317,827		324,136		337,988
Nuts:						
Peanuts—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
British Guiana.....	258,004	9,723	387,858	15,780	349,300	14,678
British South Africa.....	65,003	3,329	27,059	1,608	29,462	1,500
Canada.....	3,084,206	149,027	3,210,580	167,107	4,489,072	229,688
France.....	109,445	3,807	50,614	2,499		
Netherlands.....	518,242	13,870	119,708	5,620		
United Kingdom—						
England.....	777,353	30,620	159,592	5,578	4,592	226
Other countries.....	688,854	32,193	529,202	26,587	574,759	30,559
Total.....	5,501,107	242,569	4,484,613	224,779	5,447,185	276,651
Other—						
Canada.....		26,680		36,171		52,179
Germany.....		75,140		35,165		94,032
Mexico.....		11,190		10,409		12,068
Netherlands.....		86,163		36,493		92,500
Other countries.....		47,111		38,046		77,372
Total.....		246,284		156,284		328,151
Total nuts—						
British Guiana.....		9,723		15,780		14,689
British South Africa.....		4,384		1,608		1,509
British West Indies—						
Barbados.....						77
Jamaica.....						3,054
Trinidad and Tobago.....		5,715		6,049		401
Other British.....						3,311
Canada.....		175,707		203,278		281,867
Germany.....		75,688		35,189		94,159
Mexico.....		12,270		11,250		13,679
Netherlands.....		100,033		42,113		92,500
United Kingdom—						
England.....		34,258		18,947		15,012
Scotland.....		288		42		
Other countries.....		70,787		46,807		84,544
Total.....		488,853		381,063		604,802
Oil cake and oil-cake meal:						
Corn oil cake—						
Belgium.....	1,096,600	15,355	847,000	12,335	8,441,132	105,816
Denmark.....	1,386,817	18,551	122,100	1,375	1,325,529	16,854
France.....	13,571,338	177,931	22,429,446	315,833	40,051,378	557,296
Germany.....	30,131,507	421,399	15,066,105	210,010	17,759,183	230,197
Netherlands.....	4,772,144	61,964	8,401,917	118,983	12,574,182	162,403
Sweden.....	1,755,324	25,401	2,155,820	29,796	1,156,498	16,040
Other countries.....	520,160	6,754	86,210	1,301	2,076,868	27,380
Total.....	53,233,890	727,355	49,108,598	689,633	83,384,870	1,115,986
Cottonseed oil cake and oil-cake meal—						
Belgium.....	46,895,933	594,685	22,587,210	311,216	25,842,148	310,855
Canada.....	2,542,267	34,360	2,535,150	36,698	3,196,582	45,568
Denmark.....	463,982,271	5,791,247	213,189,942	3,036,323	272,103,376	3,345,202
France.....	72,410,256	965,761	9,591,769	123,866	21,408,140	261,154
Germany.....	387,811,603	5,159,771	235,700,873	3,324,218	289,241,899	3,804,126
Netherlands.....	83,737,615	1,064,473	53,789,333	783,158	63,143,217	785,773

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Oil cake and oil-cake meal—Continued.						
Cottonseed oil cake and oil-cake meal—Continued.	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Norway.....	32,657,905	450,042	10,328,540	146,638	30,560,765	359,427
Sweden.....	5,795,381	77,610	1,527,216	21,490	.....	.....
United Kingdom—						
England.....	98,302,866	1,190,930	46,455,971	656,638	66,119,339	837,311
Scotland.....	3,228,164	38,353	4,225,220	53,512	2,279,630	26,295
Ireland.....	35,920,385	431,859	38,891,706	556,379	29,892,378	366,595
Other countries.....	465,681	6,342	1,265,836	21,679	809,481	11,169
Total.....	1,233,750,327	15,805,433	640,088,766	9,071,815	804,596,955	10,153,475
Flaxseed or linseed oil cake and oil-cake meal—						
Belgium.....	324,435,847	4,467,236	290,766,033	4,139,676	250,509,433	3,615,064
British West Indies—						
Barbados.....	9,862,898	161,769	9,527,782	162,290	3,547,000	63,140
Jamaica.....					97,675	1,687
Trinidad and Tobago.....					4,599,305	81,651
Other British.....					1,631,880	28,504
Canada.....	319,250	4,495	929,925	12,914	355,060	4,790
Denmark.....	1,575,846	19,195	1,820,420	26,995	550,000	6,575
France.....	8,865,092	115,369	22,514,501	317,670	39,301,940	577,824
Germany.....	6,653,149	88,495	7,180,058	95,690	2,176,341	31,666
Netherlands.....	273,229,083	3,638,226	275,071,437	4,073,325	204,656,582	3,155,076
Norway.....	112,050	1,600	226,114	3,900	.....	.....
Sweden.....	331,275	4,557	60,600	908	.....	.....
United Kingdom—						
England.....	29,875,893	424,698	32,804,123	483,846	42,275,006	647,423
Scotland.....	1,694,310	25,133	961,488	15,061	1,361,430	21,162
Ireland.....	24,212,855	327,883	9,550,259	141,261	7,712,553	111,458
Other countries.....	1,596,997	24,690	904,276	16,028	900,448	15,646
Total.....	682,764,545	9,303,346	652,316,916	9,489,564	559,674,653	8,361,606
Total oil cake and oil-cake meal—						
Belgium.....	372,428,380	5,077,276	314,200,243	4,463,227	284,792,713	4,031,735
British West Indies—						
Barbados.....	9,890,523	162,245	10,153,457	174,360	3,547,000	63,140
Jamaica.....					99,675	1,724
Trinidad and Tobago.....					4,599,305	81,651
Other British.....					1,637,280	28,603
Canada.....	2,861,517	38,855	3,527,085	50,550	3,551,642	50,358
Denmark.....	466,944,934	5,828,993	215,132,462	3,064,693	273,979,005	3,368,631
France.....	94,846,686	1,250,061	54,535,716	757,369	100,761,458	1,396,274
Germany.....	424,596,259	5,660,665	257,947,036	3,629,918	309,177,423	4,065,989
Netherlands.....	361,738,842	4,764,663	337,262,687	4,975,466	280,373,981	4,103,252
Norway.....	32,769,955	451,642	10,554,654	150,538	31,014,277	366,167
Sweden.....	7,881,980	107,568	3,743,536	52,194	1,156,498	16,040
United Kingdom—						
England.....	128,299,759	1,617,128	79,260,094	1,140,484	108,394,345	1,484,734
Scotland.....	4,922,474	63,486	5,186,708	68,573	3,697,060	48,157
Ireland.....	60,254,240	761,242	48,441,965	697,640	39,091,687	496,735
Other countries.....	2,313,213	34,310	1,568,637	26,000	1,783,129	27,937
Total.....	1,969,748,762	25,836,134	1,341,514,280	19,251,012	1,447,656,478	19,631,127
Oils, vegetable:						
Fixed or expressed—						
Corn oil—						
Austria-Hungary.....	5,344,800	278,480	4,309,799	255,496	4,060,607	245,461
Belgium.....	1,797,285	102,646	163,957	9,423	5,231,487	336,898
Germany.....	5,058,615	275,762	111,562	6,157	2,157,313	138,170
Italy.....	1,897,313	99,004	1,853,414	104,268	4,673,564	270,080
Netherlands.....	825,585	47,291	367,913	21,074	2,597,165	158,415
Sweden.....	3,633,780	193,914	908,530	49,256	3,021,777	196,987

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
<i>Oils, vegetable—Continued.</i>						
<i>Fixed or expressed—Contd.</i>						
<i>Corn oil—Continued.</i>						
United Kingdom—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
England.....	829,500	44,127	1,930	166	552,893	35,940
Scotland.....			3,787	315	23,664	1,535
Ireland.....	45,000	2,447	43,560	2,402		
Other countries.....	5,009,790	249,909	3,534,880	194,835	2,998,239	190,119
Total.....	24,441,668	1,293,580	11,299,332	643,392	25,316,799	1,573,605
Cottonseed oil—						
Argentina.....	5,381,543	324,716	2,958,897	211,463	4,949,588	374,824
Australia, Common-wealth of.....	163,994	10,858	305,559	21,897	287,176	23,133
Austria-Hungary.....	7,638,885	397,370	150,949	9,885	2,695,491	201,873
Belgium.....	5,392,777	280,989	1,509,817	104,719	3,500,012	249,176
Brazil.....	2,391,863	150,645	2,945,690	207,999	3,188,925	255,462
British Guiana.....	1,057,245	60,386	1,056,244	74,895	1,168,538	90,211
British South Africa.....	1,080,390	71,064	834,437	59,911	1,542,433	126,817
British West Indies—						
Barbados.....					383,323	29,092
Jamaica.....					1,493,812	121,759
Trinidad and Tobago.....	2,322,705	137,492	2,148,843	157,784	196,367	15,771
Other British.....					503,460	39,897
Canada.....	10,693,402	613,836	15,458,774	1,054,720	12,887,645	951,364
Chile.....	1,893,173	133,020	3,105,306	232,056	5,516,716	408,765
Costa Rica.....	125,993	8,634	187,890	14,000	255,383	20,232
Cuba.....	3,391,080	204,215	2,789,648	196,935	2,819,122	214,271
Denmark.....	3,396,420	206,408	3,674,342	262,369	2,452,262	181,404
Egypt.....	2,154,405	121,163	1,328,698	94,824	837,263	65,398
France.....	40,849,710	2,202,051	8,007,347	486,682	12,755,189	945,698
French Africa.....	4,332,578	248,560	888,827	52,228	485,728	38,398
French Guiana.....	275,017	19,650	308,360	23,002	479,043	38,185
French West Indies.....	3,341,565	188,822	3,117,368	215,840	3,298,243	251,535
Germany.....	30,559,897	1,592,853	12,645,136	825,863	8,928,676	639,199
Gibraltar.....	161,850	9,290	137,277	8,404	151,404	11,846
Italy.....	67,838,220	3,925,458	18,486,000	1,226,578	29,106,127	2,315,095
Malta and Cyprus.....	1,799,257	104,538	1,009,188	74,015	1,555,302	119,940
Mexico.....	40,510,163	1,824,331	25,162,096	1,473,770	25,885,527	1,897,584
Netherlands.....	80,103,135	4,315,001	56,726,262	3,673,869	33,059,990	2,515,200
New Zealand.....	169,500	11,439	154,059	11,700	202,636	16,189
Norway.....	4,235,355	241,778	6,494,961	428,662	7,068,506	538,521
Panama.....	849,847	52,885	1,270,726	98,408	1,247,569	106,275
Portuguese Africa.....	148,905	9,771	367,740	26,176	175,004	15,024
Roumania.....	5,790,833	334,600	2,098,223	134,619	3,962,448	306,937
Santo Domingo.....	1,503,173	101,786	1,813,909	151,877	1,840,930	161,717
Sweden.....	822,788	47,198	3,603,041	241,658	1,119,183	90,124
Turkey, Asiatic.....	1,074,165	61,508	1,352,164	83,901	2,013,078	156,940
Turkey, European.....	15,672,218	881,680	6,136,835	386,118	10,072,134	800,004
United Kingdom—						
England.....	25,150,680	1,346,503	25,583,719	1,741,237	27,172,934	2,005,846
Scotland.....	3,825,938	196,878	3,006,101	198,511	3,618,646	255,970
Ireland.....	2,517,323	145,518	3,373,241	227,927	2,068,597	162,570
Uruguay.....	3,104,700	207,343	2,872,691	236,771	3,577,737	287,282
Other countries.....	894,276	63,143	884,637	66,790	998,797	81,841
Total.....	383,154,968	20,851,380	223,955,002	14,798,063	225,520,944	17,127,369
Linseed oil—						
Canada.....	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>
Cuba.....	33,055	14,872	25,081	17,420	25,782	24,960
Mexico.....	23,895	12,229	21,591	14,088	13,389	12,406
Panama.....	92,672	46,344	57,299	35,862	12,300	11,614
Philippine Islands.....	33,650	18,058	24,937	15,519	15,324	12,921
Other countries.....	2,000	1,271	21,144	17,063	9,474	10,491
Total.....	87,757	48,102	78,374	55,906	98,941	92,487
Total.....	273,029	140,876	228,426	155,858	175,210	164,879

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
<i>Oils, vegetable—Continued.</i>						
<i>Fixed or expressed—Contd.</i>						
Other oils, fixed or expressed—		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
Argentina.....		917		42,244		57,695
Canada.....		102,213		121,313		117,450
Chile.....		44,312		17,291		4,250
Cuba.....		13,442		22,409		15,612
Mexico.....		25,360		25,374		17,629
Nicaragua.....		1,804		6,690		9,908
United Kingdom—						
England.....		7,303		37,070		5,926
Scotland.....		43		560		
Other countries.....		53,966		70,558		64,287
Total.....		249,360		343,509		292,757
Volatile or essential—						
<i>Peppermint oil—</i>						
France.....	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Germany.....	5,060	8,334	4,710	10,102	7,634	17,425
United Kingdom—	57,310	118,023	53,815	119,411	39,733	94,557
England.....	81,232	128,166	41,592	66,192	65,320	132,000
Scotland.....	5,008	8,436	2,878	5,490	800	1,800
Other countries.....	13,201	25,359	7,412	14,650	9,933	23,252
Total.....	161,811	288,318	110,407	215,845	123,420	269,034
Other oils, volatile or essential—						
Canada.....		74,893		69,232		76,716
Cuba.....		13,790		15,816		12,328
France.....		19,833		27,659		26,169
Germany.....		38,646		65,775		79,639
Mexico.....		35,029		33,594		28,769
United Kingdom—						
England.....		60,609		64,394		109,956
Scotland.....		750		4,186		6,585
Other countries.....		30,986		41,978		37,426
Total.....		274,536		322,634		377,588
Total vegetable oils—						
Argentina.....		332,084		263,936		437,145
Australia, Commonwealth of.....		20,177		26,279		42,928
Austria-Hungary.....		677,148		269,282		449,852
Belgium.....		387,231		116,882		592,417
Brazil.....		154,210		219,260		261,044
British Guiana.....		60,434		75,008		90,308
British South Africa.....		71,872		60,704		131,724
British West Indies—						
Barbados.....						29,661
Jamaica.....						123,828
Trinidad and Tobago.....		147,202		166,266		16,639
Other British.....						43,589
Canada.....		852,334		1,372,061		1,232,099
Chile.....		181,874		250,529		413,593
Colombia.....		15,700		12,861		11,226
Cuba.....		243,844		249,324		255,207
Denmark.....		216,933		265,328		186,412
Ecuador.....		2,634		3,070		2,326
Egypt.....		123,246		101,253		65,748
France.....		2,407,400		528,928		1,095,535
French Africa.....		248,560		52,228		38,398
French West Indies.....		186,941		216,372		252,327
Germany.....		2,035,198		1,020,996		954,191
Gibraltar.....		9,290		8,404		11,877
Italy.....		4,029,664		1,350,539		2,595,120
Japan.....		6,983		4,183		7,858
Malta and Cyprus.....		104,538		74,015		119,940
Mexico.....		1,931,174		1,568,682		1,955,596

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
<i>Oils, vegetable—Continued.</i>						
Total vegetable oils—Contd.		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
Netherlands.....		4,369,480		3,702,614		2,685,920
Newfoundland and Labrador.....		3,812		9,762		18,084
New Zealand.....		14,322		13,431		20,513
Nicaragua.....		5,929		11,766		16,521
Norway.....		243,024		473,059		538,647
Panama.....		75,557		121,925		133,531
Roumania.....		334,856		135,679		306,937
Russia, European.....		2,745		144		1,257
Salvador.....		11,814		11,258		16,532
Santo Domingo.....		107,802		157,427		170,685
Sweden.....		241,770		290,914		287,111
United Kingdom—						
England.....		1,586,737		1,909,720		2,292,411
Scotland.....		206,152		209,062		265,890
Ireland.....		147,965		230,329		162,570
Uruguay.....		207,635		236,950		287,885
Venezuela.....		31,183		18,187		8,819
Other countries.....		1,061,096		670,675		1,175,331
Total.....		23,098,050		16,479,301		19,805,232
Rice:	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Canada.....	140,609	7,351	198,494	11,746	393,046	18,925
Costa Rica.....	5,329	202	74,854	2,167	11,000	263
Cuba.....	13,135	538	3,880,573	96,392	2,277,617	52,687
Germany.....	1,300	84	1,959	87	2,530,730	123,429
Guatemala.....	123,140	3,784	55,702	1,703	164,675	4,164
Honduras.....	184,856	5,419	138,205	4,259	684,815	20,765
Mexico.....	145,007	4,548	364,437	15,576	542,230	20,690
Nicaragua.....	107,353	3,693	322,708	9,808	320,393	10,242
Panama.....	114,287	3,362	325,754	9,297	94,483	2,929
United Kingdom—						
England.....	442,907	19,070	1,267,039	55,638	3,299,831	153,226
Scotland.....	43,260	2,372	41,960	2,432	73,300	3,957
Ireland.....	235	10	332	17	10,224	510
Other countries.....	245,113	10,381	377,585	13,122	5,172,927	211,785
Total.....	1,566,531	60,814	7,049,597	222,244	15,575,271	623,572
Rice bran, meal, and polish:						
Germany.....	17,565,625	159,802	19,432,379	176,826	14,099,481	127,062
Other countries.....	1,379,273	11,787	297,212	2,211	388,589	3,166
Total.....	18,944,898	171,589	19,729,591	179,037	14,488,070	130,228
Rice hulls:						
Belgium.....		3,760		8,091		8,682
Germany.....		110,592		55,234		21,056
United Kingdom—						
England.....		3,564		2,966		2,057
Other countries.....		1,363		6,958		5,016
Total.....		119,279		73,249		36,811
Roots, herbs, and barks, n.e.s.:						
Canada.....		15,520		29,752		36,323
France.....		24,662		32,520		37,411
Germany.....		176,926		191,864		208,138
Italy.....		18,565		22,094		16,244
Japan.....		12,397		18,058		12,456
Mexico.....		4,754		6,740		4,227
Netherlands.....		10,523		18,268		11,796
United Kingdom—						
England.....		101,154		120,376		183,301
Scotland.....				2,052		2,239
Other countries.....		31,300		35,113		51,727
Total.....		395,801		476,837		563,862

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Seeds:						
Cotton seed—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Germany.....	21,054,661	264,410	17,016,029	276,785	7,634,077	113,720
Mexico.....	635,572	13,959	2,261,415	50,858	587,017	19,581
Netherlands.....	16,378,393	187,898	3,833,579	52,110	3,099,264	42,978
United Kingdom—						
England.....	12,247,032	149,673	1,292,130	19,287	899,563	14,835
Scotland.....				1,056	449,700	7,904
Other countries.....	1,311,083	16,621	451,446	6,024	554,726	10,926
Total.....	51,626,741	632,561	24,931,099	406,120	13,224,347	209,944
Flaxseed or linseed—	<i>Bushels.</i>		<i>Bushels.</i>		<i>Bushels.</i>	
Belgium.....	251,603	320,117	8,179	14,313		
Canada.....	558	1,091	344	740	656	1,721
Germany.....			25,072	47,640		
Netherlands.....	138,778	183,081	27,598	49,496		
United Kingdom—						
England.....	163,461	202,382	3,470	5,205		
Scotland.....	328,092	385,287				
Other countries.....	407	581	530	935	320	799
Total.....	882,899	1,092,539	65,193	118,329	976	2,520
Grass seed—						
Clover seed—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Australia, Commonwealth of.....	77,978	9,289	40,640	4,452		
Belgium.....	98,312	12,715	150,008	16,336	47,040	5,110
Canada.....	5,046,676	497,099	1,338,637	152,807	925,292	139,647
Denmark.....	158,883	21,885	164,676	17,143	64,837	7,510
Germany.....	6,000,957	620,158	1,970,172	222,705	1,551,968	207,615
Netherlands.....	149,706	16,502	126,454	13,150	69,295	9,720
New Zealand.....	741,070	78,244	191,410	23,432	40,600	5,963
United Kingdom—						
England.....	2,321,478	273,423	1,789,811	194,491	987,620	110,580
Scotland.....	882,587	97,791	889,609	104,858	557,758	74,773
Ireland.....	349,161	32,360	235,228	33,077	19,090	2,549
Other countries.....	362,225	47,314	81,040	10,225	95,667	14,462
Total.....	16,186,133	1,706,780	6,977,985	832,676	4,359,167	577,929
Timothy seed—						
Australia, Commonwealth of.....	10,960	630	70,700	3,500		
Belgium.....	211,277	10,539	174,145	8,423		
Canada.....	13,436,208	529,926	14,594,702	562,037	6,435,695	657,130
Denmark.....	806,825	41,049	979,932	45,087	24,064	1,453
Germany.....	5,674,215	272,705	5,856,637	253,688	2,392,981	127,920
Netherlands.....	506,798	24,641	323,426	14,416	12,596	668
Russia, European.....	702,138	34,549	1,264,659	52,736	52,420	2,536
United Kingdom—						
England.....	724,694	33,564	2,037,373	94,857	80,107	5,918
Scotland.....	526,016	27,345	670,091	29,707	218,440	13,746
Ireland.....	346,851	14,321	378,259	15,929		
Other countries.....	400,572	20,288	763,132	35,146	91,225	8,006
Total.....	23,346,614	1,009,557	27,113,056	1,115,526	9,307,428	817,377
Other grass seed—						
Canada.....		57,613		59,181		99,797
Denmark.....		62,380		48,329		4,865
France.....		19,861		22,707		19,083
Germany.....		140,943		240,438		116,685
Netherlands.....		75,488		79,361		31,707
United Kingdom—						
England.....		28,854		26,688		9,791
Scotland.....		71,044		91,713		26,608
Ireland.....		5,877		8,707		5,218
Other countries.....		11,959		24,487		20,415
Total.....		474,519		601,611		334,160

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Seeds—Continued.						
Other seeds—						
Australia, Commonwealth of.....		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
Canada.....		20,432		13,805		22,946
France.....		113,744		136,110		160,258
Germany.....		9,195		13,595		51,910
Mexico.....		30,361		44,511		42,374
Netherlands.....		31,290		37,134		34,369
New Zealand.....		10,181		10,569		29,762
United Kingdom—		16,908		3,260		5,461
England.....		41,567		56,194		99,171
Scotland.....		8,175		3,347		7,407
Ireland.....		580		3,478		1,019
Other countries.....		58,234		89,153		78,450
Total.....		340,667		411,156		533,127
Total seeds—						
Australia, Commonwealth of.....		30,861		21,882		22,946
Belgium.....		352,379		47,576		5,512
Canada.....		1,199,473		950,875		1,058,553
Denmark.....		127,973		134,566		16,585
France.....		45,387		59,305		84,641
Germany.....		1,328,577		1,085,767		608,314
Italy.....		16,753		471		826
Mexico.....		47,751		104,674		71,776
Netherlands.....		497,791		219,102		114,835
New Zealand.....		100,360		33,758		12,452
Russia, European.....		52,235		57,577		3,914
Sweden.....		2,315		2,232		4,105
United Kingdom—						
England.....		729,463		396,722		240,295
Scotland.....		589,642		230,681		130,438
Ireland.....		53,138		61,191		8,786
Other countries.....		82,525		79,039		91,088
Total.....		5,256,623		3,485,418		2,475,066
Spices:						
Canada.....		9,846		13,166		15,816
Other countries.....		28,598		39,589		43,173
Total.....		38,444		52,755		58,989
Starch:	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Belgium.....	1,300,840	28,745	2,263,444	54,427	10,957,488	225,773
Canada.....	628,701	24,418	997,813	36,290	2,331,579	63,402
Cuba.....	158,613	6,269	48,378	1,829	237,286	6,241
Denmark.....	105,000	2,238	144,630	3,626	1,441,987	25,091
Egypt.....	133,540	2,694	355,550	9,564	1,865,664	39,650
Mexico.....	165,884	6,887	166,000	6,751	133,728	5,134
Netherlands.....	761,013	19,680	6,297,399	149,359	46,481,694	887,636
Turkey in Asia.....	472,500	9,960	625,600	15,803	1,424,325	30,620
Turkey in Europe.....	602,000	13,286	1,165,100	27,794	1,786,834	37,970
United Kingdom—						
England.....	22,625,003	514,925	33,162,537	809,272	74,656,505	1,465,007
Scotland.....	4,379,156	94,247	4,003,436	93,875	13,185,130	258,140
Ireland.....	369,200	8,539	569,742	13,390	796,200	15,642
Other countries.....	1,526,828	48,267	1,735,941	52,793	2,940,758	77,246
Total.....	33,228,278	780,155	51,535,570	1,274,773	158,239,178	3,137,552
Straw.....	<i>Long tons.</i>	<i>Dollars.</i>	<i>Long tons.</i>	<i>Dollars.</i>	<i>Long tons.</i>	<i>Dollars.</i>
	(1)	8,293	1,087	13,884	922	10,679

¹ Quantity not stated.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Sugar, molasses, and sirup:						
Molasses—	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>
Canada.....	588,316	83,741	373,770	74,691	331,988	75,750
United Kingdom—						
England.....	2,650,053	281,289	912,844	114,163	1,642,302	139,505
Scotland.....	534,122	52,300	113,207	12,530	717,640	80,920
Ireland.....	149,850	15,385	.....	.....	50,000	5,615
Other countries.....	42,567	7,510	105,534	14,952	644,881	52,318
Total.....	3,973,908	440,225	1,505,355	216,336	3,386,811	354,108
Sirup—						
Canada.....	202,486	41,351	211,980	44,050	139,967	41,674
Denmark.....	1,306,401	279,357	1,232,697	273,990	929,130	182,057
Germany.....	392,395	84,559	540,911	127,870	860,432	159,758
Netherlands.....	441,098	67,884	402,014	69,386	585,584	81,568
Norway.....	261,010	43,428	206,872	46,000	307,161	57,385
Sweden.....	72,546	17,319	114,176	22,434	148,606	28,859
United Kingdom—						
England.....	8,339,642	1,332,635	7,222,241	1,173,351	5,576,340	754,466
Scotland.....	2,717,715	337,053	3,324,324	458,113	3,259,210	398,466
Ireland.....	18,360	5,133	.....	.....	.....	.....
Other countries.....	114,103	34,482	202,092	43,446	195,369	47,685
Total.....	13,865,756	2,243,201	13,457,307	2,258,640	12,001,799	1,752,118
Sugar—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Raw.....	60,882	1,742	54,447	2,051	(¹)	(¹)
Refined—						
Bermuda.....	919,824	27,877	1,129,851	38,146	1,242,739	42,049
British Honduras.....	373,189	14,412	314,172	13,135	350,549	16,675
British South Africa.....	13,844,777	392,980	268,952	9,956	1,220,111	37,870
British West Indies—						
Barbados.....	2,000,644	67,517	2,016,689	73,538	309,378	10,654
Jamaica.....					635,197	25,184
Trinidad and Tobago.....					262,879	10,522
Other British.....					1,447,443	52,040
Canada.....	880,770	45,228	247,104	9,797	408,283	19,213
China.....	127,384	6,945	102,016	5,805	93,025	5,405
Colombia.....	195,760	6,965	44,570	1,889	97,082	3,723
Cuba.....	128,380	5,543	40,546	1,809	119,000	5,364
Haiti.....	595,854	22,755	941,628	37,750	914,298	36,511
Honduras.....	1,073,737	49,358	1,133,799	48,954	884,740	38,935
Japan.....	678,311	37,302	669,097	38,495	1,108,272	60,994
Mexico.....	2,668,732	127,730	2,305,977	115,839	1,452,014	69,651
Newfoundland and Labrador.....	5,213,723	193,036	6,539,214	296,407	6,678,770	287,850
Panama.....	4,913,346	151,041	4,491,431	159,444	5,952,714	205,091
Portuguese Africa.....	1,156,882	33,172	8,357	280	1,400	73
Russia, Asiatic.....	52,478	4,160	52,560	4,164	56,148	5,285
Santo Domingo.....	1,784,931	56,678	1,500,622	51,777	1,754,510	60,763
United Kingdom—						
England.....	36,707,850	1,348,575	76,061,592	3,272,744	21,276,731	882,975
Scotland.....	5,264,759	145,512	26,080,529	1,153,806	6,193,639	266,751
Ireland.....	150,000	6,825	.....	.....	.....	.....
Other countries.....	1,154,084	39,723	1,503,869	62,274	2,487,622	100,741
Total.....	79,885,415	2,783,334	125,452,575	5,396,009	54,947,444	2,244,379
Total sugar, molasses, and sirup—						
Belgium.....	.....	9,433	.....	18,535	.....	12,206
Bermuda.....	.....	28,789	.....	38,798	.....	42,873
British Honduras.....	.....	14,494	.....	13,202	.....	16,685
British South Africa.....	.....	393,144	.....	13,876	.....	37,917
British West Indies—						
Barbados.....	.....	68,229	.....	75,043	.....	10,941
Jamaica.....					.....	26,537
Trinidad and Tobago.....					.....	10,551
Other British.....					.....	52,280

¹ Included in "Sugar, refined."

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Sugar, molasses, and sirup—Continued.						
Total sugar, molasses, and sirup—Continued.		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
Canada.....		170,320		128,538		136,637
China.....		7,709		6,122		5,800
Colombia.....		7,052		1,955		3,757
Cuba.....		6,354		3,008		6,299
Denmark.....		279,357		274,677		185,657
Germany.....		84,834		131,023		162,606
Haiti.....		22,761		37,750		36,592
Honduras.....		49,515		49,269		39,033
Japan.....		39,273		39,230		61,528
Mexico.....		130,143		119,294		71,632
Netherlands.....		67,884		69,418		113,845
Newfoundland and Labrador.....						
Norway.....		194,611		297,422		288,569
Panama.....		43,428		49,980		65,711
Portuguese Africa.....		156,442		165,198		211,777
Russia, Asiatic.....		33,172		280		137
Sweden.....		4,308		4,331		5,675
United Kingdom—		17,319		22,434		29,631
England.....		2,962,499		4,560,258		1,776,946
Scotland.....		534,865		1,624,449		746,137
Ireland.....		27,345				5,615
Other countries.....		115,224		123,946		187,051
Total.....		5,468,502		7,873,036		4,350,605
Tobacco:						
<i>Leaf—</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Argentina.....	1,356,343	204,652	1,202,096	174,622	1,580,023	253,472
Australia, Commonwealth of.....	7,485,268	1,191,588	11,090,179	1,516,222	17,230,811	2,335,234
Austria-Hungary.....	2,220,852	280,346	2,743,117	344,341	3,359,011	435,457
Belgium.....	9,215,931	890,894	12,393,938	1,237,461	14,153,887	1,490,616
British Guiana.....	474,238	62,886	463,976	58,688	426,741	52,740
British Honduras.....	148,167	16,522	114,304	13,736	143,985	19,830
British India.....	968,407	120,513	470,108	62,867	113,897	23,222
British South Africa.....	903,196	175,812	617,521	117,276	517,469	92,532
British West Africa.....	3,998,142	536,800	5,258,541	674,378	3,400,240	432,014
British West Indies—						
Barbados.....					77,525	10,144
Jamaica.....					3,565	599
Trinidad and Tobago.....					552,527	56,376
Other British.....	1,085,424	131,523	879,072	97,383	309,426	33,200
Canada.....	11,713,034	1,662,266	13,201,474	1,878,087	13,454,063	1,854,707
Canary Islands.....	581,899	79,990	323,584	36,961	585,949	69,437
China.....	2,080,208	273,687	5,047,950	653,496	5,536,395	763,908
Costa Rica.....	38,057	8,964	147,908	24,004	70,450	12,504
Colombia.....	67,819	10,765	89,330	14,448	69,446	11,808
Danish West Indies.....	99,206	10,056	101,282	10,359	113,846	11,192
Denmark.....	181,327	15,384	231,390	16,859	81,948	8,469
Dutch Guiana.....	143,590	18,179	126,804	13,449	135,606	14,679
France.....	25,293,584	2,424,426	34,309,072	3,565,238	26,974,318	2,715,362
French Africa.....	4,081,639	519,518	4,638,873	539,809	3,178,825	382,656
French West Indies.....	362,488	35,568	316,106	32,728	324,253	33,608
German Africa.....	858,407	120,778	724,329	93,467	829,817	112,971
Germany.....	31,206,440	3,863,368	39,416,467	5,047,459	41,634,069	5,049,613
Gibraltar.....	59,707	5,649	119,996	11,893	68,438	6,310
Haiti.....	881,556	108,892	1,154,855	130,997	1,354,007	164,657
Hongkong.....	126,032	20,813	107,397	16,670	536,346	73,847
Italy.....	32,536,333	3,833,734	43,008,433	4,590,613	36,177,104	4,261,264
Japan.....	1,779,845	231,659	2,820,223	374,800	255,581	38,330
Liberia.....	206,839	28,006	377,190	46,664	433,400	58,430
Malta and Cyprus.....	192,004	20,343	277,257	24,549	359,918	34,063
Mexico.....	1,432,253	156,086	1,679,282	182,817	1,560,448	189,735
Netherlands.....	14,658,223	1,280,989	20,397,133	1,809,768	29,057,545	2,670,869
Newfoundland and Labrador.....	390,091	35,349	156,551	17,545	453,047	62,165
New Zealand.....	12,108	3,067	15,060	3,229	11,034	2,430

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Tobacco—Continued.						
<i>Leaf—Continued.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Norway.....	316, 711	31, 868	1, 805, 933	204, 195	1, 833, 439	210, 296
Panama.....	239, 480	36, 599	253, 521	30, 074	226, 461	30, 642
Portugal.....	422, 658	49, 805	627, 626	64, 498	643, 830	60, 165
Portuguese Africa.....	553, 641	68, 085	453, 049	57, 993	597, 272	81, 937
Spain.....	4, 794, 544	413, 100	14, 476, 903	1, 022, 155	17, 503, 948	1, 386, 903
Sweden.....	478, 721	48, 878	204, 962	25, 111	2, 450, 284	251, 739
United Kingdom—						
England.....	104, 461, 545	10, 281, 233	117, 324, 936	11, 655, 683	105, 469, 780	11, 494, 000
Scotland.....	5, 753, 031	536, 464	6, 196, 198	639, 913	5, 240, 101	509, 260
Ireland.....	8, 445, 997	853, 685	7, 478, 161	785, 281	11, 755, 078	1, 807, 081
Uruguay.....	41, 066	5, 140	15, 950	2, 305	24, 666	3, 175
Other countries.....	342, 868	54, 442	514, 895	97, 169	698, 319	86, 060
Total.....	282, 688, 917	30, 757, 931	353, 372, 672	38, 017, 260	351, 568, 138	39, 159, 708
Stems and trimmings—						
Belgium.....	62, 326	5, 032	6, 406	507	72, 266	2, 225
Germany.....	633, 933	32, 196	1, 642, 091	54, 048	2, 249, 565	60, 899
Netherlands.....	3, 953, 310	77, 728	2, 062, 292	39, 282	1, 140, 680	21, 508
Other countries.....	562, 460	30, 013	112, 613	4, 289	296, 423	10, 990
Total.....	5, 212, 029	144, 969	3, 823, 402	98, 126	3, 758, 934	95, 612
Total tobacco—						
Argentina.....	1, 356, 343	204, 652	1, 202, 096	174, 622	1, 580, 023	253, 472
Australia, Common-wealth of.....	7, 485, 268	1, 191, 588	11, 090, 179	1, 516, 222	17, 230, 811	2, 335, 234
Austria-Hungary.....	2, 220, 852	280, 346	2, 743, 117	344, 341	3, 359, 011	435, 457
Belgium.....	9, 278, 257	895, 926	12, 400, 344	1, 237, 968	14, 226, 153	1, 492, 841
British Guiana.....	474, 238	62, 886	463, 976	58, 688	426, 741	52, 740
British Honduras.....	148, 167	16, 522	114, 304	13, 736	143, 985	19, 830
British India.....	968, 407	120, 513	470, 108	62, 867	113, 897	23, 222
British South Africa.....	903, 196	175, 312	617, 521	117, 276	517, 469	92, 532
British West Africa.....	3, 998, 142	536, 860	5, 267, 011	674, 645	3, 400, 240	432, 014
British West Indies—						
Barbados.....					77, 525	10, 144
Jamaica.....					3, 565	599
Trinidad and Tobago.....	1, 085, 424	131, 523	879, 072	97, 383	552, 527	56, 376
Other British.....					309, 426	33, 200
Canada.....	11, 713, 034	1, 662, 266	13, 201, 474	1, 878, 087	13, 454, 063	1, 854, 707
Canary Islands.....	581, 899	79, 990	323, 584	36, 961	585, 949	69, 437
China.....	2, 080, 208	273, 687	5, 047, 950	653, 496	5, 536, 395	763, 908
Costa Rica.....	38, 057	8, 964	147, 908	24, 004	70, 450	12, 504
Colombia.....	67, 819	10, 765	89, 330	14, 448	69, 446	11, 808
Cuba.....	11, 056	2, 391	12, 598	3, 246	.....	.....
Denmark.....	181, 327	15, 384	231, 390	16, 859	124, 632	9, 909
Dutch Guiana.....	143, 590	18, 179	126, 804	13, 449	135, 606	14, 679
France.....	25, 332, 789	2, 427, 375	34, 309, 072	3, 565, 233	26, 974, 318	2, 715, 362
French Africa.....	4, 122, 412	522, 178	4, 638, 873	539, 809	3, 243, 180	387, 420
French West Indies.....	362, 988	35, 618	316, 106	32, 728	324, 253	33, 608
Germany.....	31, 840, 373	3, 805, 564	41, 058, 558	5, 101, 507	43, 883, 634	5, 110, 502
German Africa.....	858, 407	120, 778	724, 329	93, 467	835, 547	113, 046
Gibraltar.....	397, 701	27, 246	163, 119	14, 574	68, 438	6, 310
Haiti.....	881, 556	108, 892	1, 154, 855	130, 997	1, 354, 007	164, 657
Hongkong.....	126, 032	20, 813	107, 397	16, 670	536, 346	73, 847
Italy.....	32, 536, 333	3, 833, 734	43, 008, 433	4, 590, 613	36, 177, 104	4, 261, 264
Japan.....	1, 779, 845	231, 659	2, 820, 223	374, 800	255, 581	38, 330
Liberia.....	206, 839	28, 006	377, 190	46, 664	433, 400	58, 430
Malta and Cyprus.....	192, 004	20, 343	277, 257	24, 549	359, 918	34, 063
Mexico.....	1, 432, 253	156, 086	1, 679, 282	182, 817	1, 560, 448	189, 735
Netherlands.....	18, 611, 533	1, 358, 717	22, 459, 475	1, 849, 050	30, 198, 225	2, 592, 377
Newfoundland and Labrador.....	530, 091	37, 999	156, 551	17, 545	453, 047	62, 165
New Zealand.....	12, 106	3, 067	15, 050	3, 229	11, 034	2, 430
Norway.....	316, 711	31, 868	1, 805, 933	204, 195	1, 833, 439	210, 296
Panama.....	239, 480	36, 599	253, 521	30, 074	226, 461	30, 642

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
Tobacco—Continued.						
Total tobacco—Continued.	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Portugal.....	422,658	49,805	627,626	64,498	643,830	60,165
Portuguese Africa.....	553,641	68,085	453,049	57,993	597,272	81,937
Spain.....	4,794,951	413,135	14,476,903	1,022,155	17,503,948	1,386,903
Sweden.....	478,721	48,878	255,367	26,119	2,623,836	256,119
United Kingdom—						
England.....	104,464,676	10,281,296	117,330,741	11,655,867	105,479,632	11,494,315
Scotland.....	5,753,031	536,464	6,196,198	639,913	5,240,101	509,260
Ireland.....	8,445,997	853,685	7,482,671	785,430	11,755,078	1,307,081
Uruguay.....	41,066	5,140	15,950	2,305	24,666	3,175
Other countries.....	431,468	62,116	603,579	104,282	812,415	97,268
Total.....	287,900,946	30,902,900	357,196,074	38,115,386	355,327,072	39,255,320
Vegetables:						
<i>Fresh or dried—</i>						
<i>Beans and dried peas—</i>	<i>Bushels.</i>	<i>Dollars.</i>	<i>Bushels.</i>	<i>Dollars.</i>	<i>Bushels.</i>	<i>Dollars.</i>
Brazil.....	20,292	51,251	19,535	60,682	9,440	33,167
British Honduras.....	6,486	15,859	7,860	21,198	8,460	22,612
British West Indies—						
Barbados.....					1,074	3,525
Jamaica.....					3,059	11,020
Trinidad and Tobago.....	18,542	40,246	15,382	40,996	2,479	8,189
Other British.....					3,393	10,714
Canada.....	24,056	57,299	26,378	68,058	39,361	115,078
Costa Rica.....	6,447	15,850	9,643	23,923	10,460	24,011
Cuba.....	110,083	250,629	147,076	397,718	109,764	305,589
Dutch West Indies.....	3,111	6,731	1,917	5,363	1,971	6,001
French Guiana.....	4,436	12,663	3,909	11,119	3,038	9,787
French West Indies.....	5,015	12,095	2,206	6,111	1,394	4,135
Honduras.....	6,402	15,973	6,657	17,326	4,397	10,264
Mexico.....	17,510	37,063	27,899	64,799	6,015	17,955
Nicaragua.....	13,408	33,082	20,691	52,324	18,310	43,373
Panama.....	29,470	70,206	30,807	80,323	28,722	75,327
Philippine Islands.....	7,357	21,111	8,337	24,452	6,746	18,199
United Kingdom—						
England.....	4,299	10,975	2,104	5,208	5,096	17,816
Other countries.....	21,295	51,786	35,320	93,631	25,459	77,901
Total.....	298,209	702,819	365,721	973,231	288,638	814,663
Onions—						
Canada.....	55,797	35,570	102,390	68,761	94,560	87,475
Cuba.....	47,163	42,734	34,503	26,651	27,367	20,171
Mexico.....	27,677	28,759	26,471	24,448	26,528	29,780
Panama.....	46,465	47,963	46,162	45,251	47,282	48,494
Other countries.....	189,887	163,025	44,729	43,023	38,552	38,117
Total.....	366,989	318,051	254,255	208,134	234,289	224,037
Potatoes—						
Bermuda.....	10,179	10,261	6,237	6,279	13,502	11,566
British West Indies—						
Barbados.....					6,952	4,784
Jamaica.....					10,807	8,015
Trinidad and Tobago.....	16,716	14,830	16,481	14,710	12,108	8,232
Other British.....					8,303	5,985
Canada.....	107,425	112,436	207,764	146,727	335,724	244,997
Colombia.....	4,231	4,245	5,654	4,750	11,224	9,400
Cuba.....	393,518	350,989	507,359	382,252	1,594,395	928,755
Guatemala.....	8,140	5,685	7,211	5,001	8,596	6,856
Mexico.....	52,957	49,569	62,612	48,468	141,771	112,249
Panama.....	128,251	128,590	135,808	111,101	146,165	118,211
Other countries.....	42,234	39,096	50,350	39,989	94,340	76,580
Total.....	763,651	715,701	999,476	759,277	2,383,887	1,535,630

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
<i>Vegetables—Continued.</i>						
<i>Prepared or preserved—</i>						
<i>Canned—</i>						
Australia, Common-wealth of.....		<i>Dollars.</i> 29,586		<i>Dollars.</i> 26,309		<i>Dollars.</i> 54,700
Bermuda.....		4,223		5,419		6,829
Brazil.....		9,865		15,887		27,264
British Honduras.....		6,199		4,946		11,590
British South Africa.....		8,926		13,115		20,307
British West Indies—						
Barbados.....						564
Jamaica.....						2,318
Trinidad and Tobago.....		9,468		8,393		2,902
Other British.....						3,289
Canada.....		45,896		97,380		299,173
China.....		13,708		14,102		17,477
Cuba.....		39,744		35,171		52,804
Hongkong.....		8,029		10,092		9,406
Mexico.....		95,998		113,178		85,987
New Zealand.....		4,153		5,367		5,822
Panama.....		78,796		85,172		92,135
Philippine Islands.....		116,930		93,121		116,574
United Kingdom—						
England.....		163,525		139,347		104,956
Scotland.....		17,035		27,387		42,174
Ireland.....				55		22
Other countries.....		76,030		88,532		104,966
Total.....		728,111		782,973		1,061,259
<i>Other than canned—</i>						
Australia, Common-wealth of.....		4,939		10,869		11,173
British South Africa.....		5,487		6,660		11,714
British West Indies—						
Barbados.....						160
Jamaica.....						1,840
Trinidad and Tobago.....		4,968		4,607		2,244
Other British.....						2,209
Canada.....		706,152		816,705		1,230,439
Cuba.....		37,019		40,623		42,595
Mexico.....		45,862		43,224		33,601
New Zealand.....		587		822		10,658
Panama.....		74,530		92,217		106,654
Philippine Islands.....		40,328		38,068		48,465
United Kingdom—						
England.....		249,863		309,548		253,444
Scotland.....		67,331		49,485		66,239
Ireland.....		85		50		
Other countries.....		58,633		70,826		88,067
Total.....		1,295,784		1,483,704		1,909,502
Total vegetables—						
Australia, Common-wealth of.....		40,383		42,385		66,331
Belgium.....		4,448		3,665		2,710
Bermuda.....		22,963		22,868		34,009
Brazil.....		63,582		81,542		75,397
British Guiana.....		6,539		9,954		18,546
British Honduras.....		32,142		34,951		47,724
British South Africa.....		16,421		21,369		33,588
British West Indies—						
Barbados.....						9,425
Jamaica.....						29,604
Trinidad and Tobago.....		76,501		76,904		21,730
Other British.....						25,108
Canada.....		957,353		1,197,631		1,977,162

¹ Chiefly pickles, sauces, and relishes, but including some fresh vegetables.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FARM PRODUCTS—continued.						
<i>Vegetable matter—Continued.</i>						
<i>Vegetables—Continued.</i>						
Total vegetables—Contd.		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
China.....		19,327		19,875		24,271
Colombia.....		12,497		15,376		24,479
Costa Rica.....		21,988		31,540		32,761
Cuba.....	721,115		882,415		1,349,914	
Danish West Indies.....	10,661		13,169		13,824	
Dutch West Indies.....	9,439		7,953		8,831	
France.....	4,704		6,451		9,110	
French Guiana.....	12,695		11,148		9,813	
French Oceania.....	9,564		12,111		14,963	
French West Indies.....	12,393		6,333		4,398	
Germany.....	5,266		6,556		4,441	
Guatemala.....	15,118		12,962		13,658	
Honduras.....	30,076		28,489		27,391	
Hongkong.....	19,128		19,214		25,173	
Japan.....	9,268		6,200		9,726	
Mexico.....	257,251		294,117		279,572	
Newfoundland and Labrador.....	18,489		19,826		30,213	
New Zealand.....	10,713		15,074		19,174	
Nicaragua.....	44,083		64,986		61,968	
Panama.....	400,085		414,064		440,821	
Philippine Islands.....	179,832		158,577		183,611	
Russia, Asiatic.....	3,370		744		518	
Santo Domingo.....	18,863		32,787		23,171	
United Kingdom—						
England.....	551,943		456,797		381,939	
Scotland.....	85,822		76,872		108,413	
Ireland.....	93		105		22	
Venezuela.....	5,911		5,372		9,339	
Other countries.....	50,440		96,937		87,243	
Total.....		3,760,466		4,207,319		5,545,091
Vinegar.....	<i>Gallons.</i> 106,903	<i>Dollars.</i> 15,100	<i>Gallons.</i> 114,747	<i>Dollars.</i> 12,861	<i>Gallons.</i> 130,588	<i>Dollars.</i> 21,876
Yeast:						
Canada.....		34,361		54,860		119,760
Other countries.....		16,094		16,385		24,211
Total.....		50,455		71,245		143,971
FOREST PRODUCTS.						
Bark, and extract of, for tanning:						
Bark—	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Japan.....	981,601	17,990	906,280	12,311	1,493,439	19,413
Other countries.....	2,864,089	38,582	304,025	5,980	161,000	522
Total.....	3,845,690	56,572	1,210,305	18,291	1,654,439	19,935
Extract—						
Belgium.....		4,460		7,077		12,329
Canada.....		173,936		283,160		193,591
Germany.....		17,020		18,184		10,350
Netherlands.....		3,427		1,968		452
Russia, European.....		1,000		5,195		2,360
United Kingdom—						
England.....		32,298		54,643		90,730
Scotland.....		1,480		870		3,493
Other countries.....		27,344		17,351		23,295
Total.....		260,965		388,448		336,600

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS—continued.						
Bark, and extract of, for tanning—Continued.						
Total bark, and extract of, for tanning—		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
Belgium.....		4,460		7,077		12,329
Canada.....		191,350		288,540		194,113
France.....		5,665		1,678		281
Germany.....		22,015		18,184		10,350
Japan.....		18,190		13,064		23,668
Netherlands.....		3,427		1,968		452
Russia, European.....		1,400		5,195		2,360
United Kingdom—						
England.....		38,985		54,643		90,730
Scotland.....		1,480		870		3,493
Other countries.....		30,565		15,520		18,759
Total.....		317,537		406,739		356,535
Charcoal:						
Canada.....		4,853		16,946		17,586
Other countries.....		8,507		8,364		9,731
Total.....		13,360		25,310		27,317
Moss:						
Canada.....		30,026		29,024		36,331
Other countries.....		9,258		12,219		15,114
Total.....		39,284		41,243		51,445
Naval stores:						
Rosin—						
Argentina.....	<i>Barrels.</i>	<i>Dollars.</i>	<i>Barrels.</i>	<i>Dollars.</i>	<i>Barrels.</i>	<i>Dollars.</i>
Australia, Commonwealth of.....	105,956	447,408	107,733	494,906	87,044	601,531
Austria-Hungary.....	30,491	147,724	22,056	115,513	31,092	211,480
Belgium.....	88,763	276,213	63,571	282,859	64,656	403,188
Brazil.....	67,317	200,974	165,027	717,372	120,947	792,343
British India.....	143,779	566,845	146,997	692,560	173,812	1,103,286
British South Africa.....	12,227	47,274	12,144	52,032	7,052	43,711
Canada.....	4,575	23,187	2,934	13,736	1,735	10,985
Chile.....	63,993	320,115	67,700	374,190	77,062	500,900
Colombia.....	10,609	42,006	7,141	32,680	6,767	46,880
Costa Rica.....	6,997	31,125	7,440	40,853	9,750	64,798
Cuba.....	2,390	10,722	2,257	10,974	1,975	12,296
Germany.....	21,301	84,857	23,353	104,372	23,810	159,250
Italy.....	661,318	2,350,114	607,234	2,649,926	739,964	4,631,708
Japan.....	107,875	381,729	87,656	414,076	79,081	509,004
Mexico.....	18,528	82,088	22,029	107,615	24,606	177,555
Netherlands.....	1,104	5,065	972	5,373	1,259	8,553
New Zealand.....	240,240	805,618	197,870	847,335	174,868	1,083,335
Peru.....	6,804	34,540	2,707	14,567	3,333	25,033
Russia, European.....	5,470	21,565	5,033	23,415	7,005	44,392
Santo Domingo.....	58,837	195,976	59,162	280,282	78,031	615,459
Spain.....	2,305	9,220	2,728	15,342	1,365	9,780
United Kingdom—	7,302	21,893	3,784	15,831	9,184	62,262
England.....	369,072	1,362,652	400,989	1,850,620	335,517	2,139,986
Scotland.....	62,950	264,610	58,920	285,987	58,459	352,876
Ireland.....	14,922	60,794	9,399	40,814	6,504	38,986
Uruguay.....	33,645	119,502	30,106	138,302	32,398	205,364
Venezuela.....	7,836	33,844	8,129	42,865	7,206	50,346
Other countries.....	13,571	57,178	19,187	89,091	25,125	162,048
Total.....	2,170,177	8,004,838	2,144,318	9,753,488	2,189,607	14,067,335
Tar—						
Canada.....	4,414	18,180	(1)	(1)	(1)	(1)
United Kingdom—						
England.....	30	170				
Other countries.....	6,628	28,092				
Total.....	11,072	46,442	(1)	(1)	(1)	(1)

¹ Not separately stated.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS—continued.						
Naval stores—Continued.						
Turpentine and pitch—	<i>Barrels.</i>	<i>Dollars.</i>	<i>Barrels.</i>	<i>Dollars.</i>	<i>Barrels.</i>	<i>Dollars.</i>
Canada.....	4,535	13,453				
United Kingdom—						
England.....	96	671	(1)	(1)	(1)	(1)
Scotland.....	50	140				
Other countries.....	5,353	17,545				
Total.....	10,034	31,809	(1)	(1)	(1)	(1)
Total tar, turpentine, and pitch—						
Canada.....	8,949	31,633	11,629	45,133	17,793	83,875
United Kingdom—						
England.....	126	841	8,901	31,642	5,058	20,432
Scotland.....	50	140	822	2,937	208	994
Other countries.....	11,981	45,637	18,685	68,526	17,321	81,822
Total.....	21,106	78,251	40,037	148,238	40,380	187,183
Turpentine, spirits of—	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>
Argentina.....	354,252	165,164	422,684	264,309	487,878	373,179
Australia, Commonwealth of.....	333,103	156,250	312,016	178,380	645,880	507,558
Austria-Hungary.....	41,800	16,278	39,935	22,672	56,900	43,115
Belgium.....	1,723,168	637,378	2,218,336	1,181,305	2,194,802	1,643,824
Brazil.....	193,564	93,127	255,623	163,956	286,382	228,456
British India.....	55,500	27,603	47,200	28,741	45,029	32,463
British South Africa.....	69,628	35,140	82,887	55,836	124,926	105,585
British West Indies—						
Barbados.....					1,695	1,327
Jamaica.....					4,862	3,405
Trinidad and Tobago.....	16,472	7,489	17,341	9,903	5,149	3,572
Other British.....					2,174	1,771
Canada.....	964,749	397,868	964,460	540,027	1,097,802	693,761
Chile.....	115,492	52,630	108,786	64,644	135,869	104,130
China.....	10,350	5,624	6,682	4,295	10,594	8,109
Cuba.....	131,257	58,595	116,055	67,187	60,984	46,109
Germany.....	3,107,195	1,213,703	2,617,650	1,495,019	1,786,336	1,283,741
Italy.....	230,894	89,807	194,321	116,659	87,489	56,972
Japan.....	43,030	19,870	1,138	725	7,012	4,566
Netherlands.....	2,562,419	1,010,249	2,261,884	1,266,990	1,556,101	1,117,875
New Zealand.....	114,650	54,844	76,332	48,895	116,333	93,777
Panama.....	25,946	12,509	29,629	18,091	24,894	15,353
Peru.....	23,337	11,193	28,023	17,420	34,700	27,892
Philippine Islands.....	39,650	19,818	13,959	10,067	23,350	23,998
Portuguese Africa.....	23,723	11,882	22,229	15,168	24,376	20,090
United Kingdom—						
England.....	6,880,060	2,736,140	5,314,671	2,963,120	5,645,381	4,069,548
Scotland.....	310,783	122,309	307,565	168,362	190,904	139,717
Ireland.....			4,500	2,250		
Uruguay.....	40,400	18,221	48,040	29,457	61,109	40,657
Other countries.....	90,606	44,367	75,191	46,758	93,840	71,652
Total.....	17,502,028	7,018,058	15,587,737	8,780,236	14,817,751	10,768,202
Total naval stores—						
Argentina.....		612,572		759,294		974,834
Australia, Commonwealth of.....		305,126		295,471		720,812
Austria-Hungary.....		292,491		305,531		446,353
Belgium.....		838,512		1,904,203		2,436,167
Brazil.....		660,321		857,113		1,332,237
British India.....		74,972		80,773		76,174
British South Africa.....		58,327		70,580		116,580
British West Indies—						
Barbados.....						2,508
Jamaica.....						4,468
Trinidad and Tobago.....		12,461		16,727		6,808
Other British.....						3,467

¹ Not separately stated.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS—continued.						
Naval stores—Continued.						
Total naval stores—Contd.		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
Canada.....		749,616		959,350		1,278,536
Chile.....		95,539		99,083		162,520
China.....		12,936		15,677		23,979
Colombia.....		37,807		46,977		73,602
Costa Rica.....		15,668		17,046		25,074
Cuba.....		149,239		177,983		223,563
Dutch East Indies.....		1,540		1,968		80,116
Germany.....		3,563,817		4,145,495		5,916,168
Italy.....		471,536		530,735		565,976
Japan.....		102,330		108,694		182,283
Mexico.....		17,327		16,856		24,251
Netherlands.....		1,817,162		2,121,810		2,218,386
Newfoundland and Labrador.....		12,638		19,633		10,612
New Zealand.....		89,384		63,462		118,967
Panama.....		19,168		29,239		26,895
Peru.....		33,281		41,478		72,904
Philippine Islands.....		21,459		13,625		25,450
Portugal.....		3,084		241		
Portuguese Africa.....		15,818		25,378		30,446
Russia, European.....		195,976		280,282		615,459
Santo Domingo.....		10,899		17,077		12,512
Spain.....		21,893		20,576		62,677
United Kingdom—						
England.....		4,099,633		4,845,332		6,229,966
Scotland.....		387,059		457,286		493,587
Ireland.....		60,794		43,064		38,986
Uruguay.....		137,723		167,813		252,049
Venezuela.....		40,411		51,253		61,481
Other countries.....		62,628		74,807		85,867
Total.....		15,101,147		18,681,962		25,022,720
Wood:						
Lumber—						
Boards, deals, and planks—						
Argentina.....	<i>M feet.</i>	<i>Dollars.</i>	<i>M feet.</i>	<i>Dollars.</i>	<i>M feet.</i>	<i>Dollars.</i>
Australia, Common-wealth of.....	206,878	3,531,393	275,287	4,913,032	260,966	4,958,830
Austria-Hungary.....	120,806	1,921,301	104,862	2,018,618	174,099	3,026,104
Azores, and Madeira Is.....	682	22,673	641	20,934	916	24,379
Belgium.....	868	26,087	589	15,020	613	14,329
Bermuda.....	54,031	1,622,225	65,206	2,055,469	69,406	2,139,473
Brazil.....	394	13,975	830	23,835	769	18,711
British Guiana.....	34,742	618,334	33,989	671,251	42,586	818,880
British Honduras.....	258	6,431	589	12,186	856	23,009
British India.....	1,725	33,871	2,029	41,275	2,935	70,931
British Oceania, n. e. s.....	2,414	24,892	6,999	87,609	3,278	44,437
British South Africa.....	3,354	57,283	2,218	40,507	5,719	120,982
British West Africa.....	9,328	168,883	17,361	334,612	19,716	402,766
British West Indies—	415	15,345	1,268	27,854	1,401	26,559
Barbados.....						
Jamaica.....						
Trinidad and Tobago.....						
Other British.....						
Canada.....						
Canary Islands.....						
Chile.....						
China.....						
Colombia.....						
Costa Rica.....						
Cuba.....						
Danish West Indies.....						
Denmark.....						
Dutch Guiana.....						
Dutch West Indies.....						
Ecuador.....						
Egypt.....						
France.....						
Germany.....						
Italy.....						
Japan.....						
Mexico.....						
Netherlands.....						
Newfoundland and Labrador.....						
New Zealand.....						
Panama.....						
Peru.....						
Philippine Islands.....						
Portugal.....						
Portuguese Africa.....						
Russia, European.....						
Santo Domingo.....						
Spain.....						
United Kingdom—						
England.....						
Scotland.....						
Ireland.....						
Uruguay.....						
Venezuela.....						
Other countries.....						
Total.....						

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS—continued.						
Wood—Continued.						
Lumber—Continued.						
Boards, deals, and planks—Continued.	<i>M feet.</i>	<i>Dollars.</i>	<i>M feet.</i>	<i>Dollars.</i>	<i>M feet.</i>	<i>Dollars.</i>
French Africa.....	1,764	39,906	1,628	38,034	1,656	39,140
French Oceania.....	2,202	37,799	2,580	50,351	5,271	98,853
French West Indies.....	1,562	36,499	2,434	55,215	4,366	100,198
German Oceania.....	396	8,882	1,339	24,264	1,055	17,165
Germany.....	64,250	1,752,345	70,664	1,885,419	77,051	2,132,468
Guatemala.....	1,316	35,062	1,424	43,456	1,767	46,748
Haiti.....	2,260	58,720	3,645	90,701	7,171	176,227
Honduras.....	1,756	35,147	1,976	43,485	2,366	48,133
Hongkong.....	3,456	50,841	1,500	22,935	4,251	54,560
Italy.....	29,189	732,648	42,175	949,080	41,029	981,233
Japan.....	7,814	86,522	11,962	161,364	10,238	132,647
Mexico.....	82,599	1,375,967	101,253	1,661,631	90,453	1,528,391
Morocco.....	420	7,263	1,708	35,056	1,843	35,751
Netherlands.....	66,034	1,834,146	81,431	2,314,557	82,423	2,286,879
Newfoundland and Labrador.....	688	13,726	1,273	27,969	610	13,078
New Zealand.....	8,942	149,117	3,227	39,544	6,550	88,560
Nicaragua.....	563	14,198	582	15,792	334	8,766
Norway.....	692	21,102	570	20,545	1,494	47,939
Panama.....	30,001	667,375	49,300	1,006,005	35,985	719,542
Peru.....	52,616	697,506	33,204	439,417	39,268	498,908
Philippine Islands.....	14,796	186,944	22,276	282,016	17,778	239,785
Portugal.....	1,794	35,595	2,511	51,816	2,973	62,956
Portuguese Africa.....	9,558	153,890	5,040	90,892	10,789	198,653
Santo Domingo.....	2,219	48,278	4,066	84,249	3,938	91,296
Spain.....	20,383	417,564	20,510	422,311	27,638	600,070
Straits Settlements.....	1,208	14,862	918	14,357		
United Kingdom—						
England.....	148,318	4,725,755	164,154	5,219,592	186,917	5,738,784
Scotland.....	22,966	676,898	15,442	538,911	20,359	647,621
Ireland.....	7,882	224,510	8,534	260,969	7,992	249,501
Uruguay.....	31,303	527,687	42,503	728,224	33,325	688,168
Other countries.....	959	22,359	1,927	38,650	1,229	29,740
Total.....	1,357,822	29,056,579	1,684,489	36,774,219	2,031,608	43,756,177
Joists and scantling—						
Argentina.....	4,866	76,010	1,294	25,258	1,930	27,608
British West Indies—						
Barbados.....						
Jamaica.....						
Trinidad and Tobago.....	890	15,427	962	20,287	662	14,410
Other British.....						
Canada.....	6,622	120,107	10,878	207,114	10,552	164,234
Canary Islands.....	847	16,893	1,059	21,629	1,166	23,622
Cuba.....			495	7,899	1,765	22,736
Mexico.....	965	23,766	7,608	156,730	11,240	233,749
Panama.....	1,017	19,121	928	14,995	718	9,311
Spain.....	441	9,847			458	8,227
United Kingdom—						
England.....	1,505	23,269	13	1,120	8	304
Ireland.....			15	615	18	610
Other countries.....	4,969	74,474	3,020	52,206	840	15,547
Total.....	22,122	378,914	26,272	507,853	29,357	520,358
Shingles—	<i>M.</i>	<i>Dollars.</i>	<i>M.</i>	<i>Dollars.</i>	<i>M.</i>	<i>Dollars.</i>
British West Indies—						
Barbados.....						
Jamaica.....					1,732	11,170
Trinidad and Tobago.....	5,377	36,853	2,639	16,476	100	800
Other British.....					1,360	6,985
Canada.....	1,861	4,488	3,603	7,168	15,781	33,528
Mexico.....	4,515	12,532	8,817	21,363	7,906	19,546
Other countries.....	2,351	7,911	2,233	8,364	5,429	22,310
Total.....	14,104	61,784	17,292	53,371	32,308	94,339

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS—continued.						
Wood—Continued.						
Lumber—Continued.						
Shooks—						
Box—		Dollars.		Dollars.		Dollars.
Argentina.....		3,686		4,714		1,000
Brazil.....		10,581		26,863		21,233
British West Indies—						
Barbados.....						
Jamaica.....						35,723
Trinidad and Tobago		36,880		33,296		16
Other British.....						286
Canada.....		9,454		79,824		34,048
Cuba.....		228,145		230,797		248,134
Hongkong.....		888		13,400		15,500
Italy.....		154,569		87,585		27,622
Mexico.....		347,035		428,300		383,286
Peru.....		25,444		29,806		40,367
Santo Domingo.....		7,138		10,538		9,951
Straits Settlements.....		40,325		91,380		129,236
United Kingdom—						
England.....		75,202		50,276		60,441
Scotland.....		2,493		7,669		6,331
Ireland.....				575		1,162
Other countries.....		16,342		26,590		95,280
Total.....		957,682		1,121,613		1,109,646
Shooks, other than box—	Number.	Dollars.	Number.	Dollars.	Number.	Dollars.
Argentina.....	671,469	1,477,474	523,695	1,086,505	493,506	1,022,800
Brazil.....	849	1,296	12,895	15,458	27,852	35,318
British Guiana.....	2,450	11,087	1,182	2,787	2,309	8,698
British West Indies—						
Barbados.....					69,001	100,412
Jamaica.....					18,446	70,895
Trinidad and Tobago		106,767	127,590	253,783	23,757	30,246
Other British.....		226,072			24,653	15,339
China.....	10,619	14,885	46,254	65,766	65,444	99,478
Cuba.....	77,181	38,358	124,679	63,187	177,244	83,000
French West Indies.....	53,087	113,083	58,687	121,768	60,538	117,573
United Kingdom—						
England.....	37,510	44,089	4,342	6,051	27,415	28,635
Scotland.....	1,451	793				
Other countries.....	15,993	35,062	28,873	39,306	29,246	49,638
Total.....	977,376	1,962,199	928,197	1,654,611	1,019,411	1,662,032
Staves and heading—						
Heading—						
Argentina.....				31,479		40,308
Belgium.....		5,770		6,033		55,742
British Guiana.....		16,074		8,199		29
British West Indies—						
Barbados.....						971
Jamaica.....						114
Trinidad and Tobago		4,459		2,319		1,527
Other British.....						11
Canada.....		24,760		54,675		64,237
France.....		1,640		18,458		11,419
French West Indies.....		6,234		12,957		5,357
Germany.....		17,731		29,244		83,081
Netherlands.....		6,138		13,856		26,837
Norway.....		6,000		1,902		8,100
United Kingdom—						
England.....		21,098		13,975		21,430
Scotland.....		3,960		2,290		10,505
Ireland.....		15,902		10,934		15,623
Other countries.....		25,000		16,657		42,178
Total.....		154,766		223,038		388,369

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS—continued.						
Wood—Continued.						
Lumber—Continued.						
Staves and heading—Con.						
Staves—	<i>Number.</i>	<i>Dollars.</i>	<i>Number.</i>	<i>Dollars.</i>	<i>Number.</i>	<i>Dollars.</i>
Argentina.....			473,385	14,325	452,028	25,636
Austria-Hungary.....	243,257	24,875	601,858	59,900	434,071	46,456
Australia, Common-wealth of.....	307,539	21,600	372,469	26,646	544,524	30,991
Belgium.....	1,159,956	111,819	585,758	65,134	3,302,184	347,807
British Guiana.....	672,593	62,909	460,607	44,730	263,404	24,430
British South Africa.....	286,596	28,632	289,166	28,582	214,220	21,437
British West Indies—						
Barbados.....					9,000	400
Jamaica.....	81,450	1,542	234,444	8,597	389,300	6,630
Trinidad and Tobago.....						
Other British.....						
Canada.....	5,167,214	149,085	7,560,404	192,540	10,686,036	252,623
Chile.....	107,091	19,902	119,191	21,426	174,975	31,404
France.....	14,316,008	1,670,764	11,990,531	1,324,641	9,785,371	1,116,523
French Africa.....	1,074,769	118,808	154,535	15,454	1,019,565	152,701
French West Indies.....	865,418	51,968	720,404	47,474	906,929	95,305
Germany.....	2,709,368	298,103	2,234,133	165,971	7,123,933	432,211
Italy.....	6,730,663	608,217	5,061,860	456,422	6,726,586	439,179
Netherlands.....	2,861,524	318,493	4,155,990	349,605	5,082,473	445,282
Newfoundland and Labrador.....	89,873	8,705	212,205	16,220	91,330	8,425
Norway.....	614,499	25,732	667,294	30,503	1,344,579	86,144
Peru.....	58,299	9,685	50,802	9,837	67,282	10,299
Portugal.....	1,733,973	433,924	2,119,624	512,151	1,844,709	401,617
Spain.....	4,004,837	700,348	3,375,972	491,541	3,790,341	607,000
United Kingdom—						
England.....	5,456,269	620,171	5,733,858	620,828	6,125,927	647,638
Scotland.....	1,149,533	110,022	754,767	64,898	1,484,227	146,813
Ireland.....	1,557,653	86,207	888,831	81,765	2,685,812	241,499
Other countries.....	1,334,634	42,688	965,683	23,895	1,176,789	48,404
Total.....	52,583,016	5,524,199	49,783,771	4,673,085	65,725,595	5,666,854
Other lumber—						
Argentina.....		462,785		331,412		279,659
Australia, Common-wealth of.....		158,170		130,106		276,033
Belgium.....		166,544		129,430		93,470
Brazil.....		110,215		85,710		224,257
British South Africa.....		109,338		134,802		201,484
British West Indies—						
Barbados.....						87
Jamaica.....						9,487
Trinidad and Tobago.....		20,053		44,139		20,888
Other British.....						5,066
Canada.....		821,068		933,521		1,553,105
Chile.....		2,681		2,387		4,472
China.....		1,044		200		8,561
Colombia.....		7,700		9,656		7,944
Costa Rica.....		1,071		11,086		45,433
Cuba.....		18,487		82,440		74,802
France.....		151,379		194,510		138,543
Germany.....		245,221		257,415		200,195
Guatemala.....		1,052		1,945		10,587
Haiti.....		3,717		18,143		13,395
Italy.....		530,717		14,176		8,042
Mexico.....		357,426		363,381		581,943
Netherlands.....		336,274		589,453		495,965
New Zealand.....		21,282		16,167		28,377
Panama.....		149,218		113,042		190,496
Peru.....		87,349		54,521		99,790
Philippine Islands.....		1,520		20,958		12,030
Portuguese Africa.....		69,685		35,554		29,051
Santo Domingo.....		2,556		9,966		12,206
Spain.....		8,642		2,467		5,885

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS—continued.						
Wood—Continued.						
Lumber—Continued.						
Other lumber—Contd.						
United Kingdom—		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
England.....		1,232,419		1,319,339		1,120,796
Scotland.....		196,484		292,310		250,322
Ireland.....		4,241		3,000		4,900
Uruguay.....		114,882		87,152		175,612
Venezuela.....		4,583		11,735		17,253
Other countries.....		64,063		55,062		123,766
Total.....		5,461,866		5,355,245		6,328,902
Total lumber—						
Argentina.....		5,551,348		6,407,505		6,355,841
Australia, Common-wealth of.....		2,122,363		2,176,641		3,340,814
Austria-Hungary.....		48,073		81,159		70,847
Azores and Madeira Is.....		37,355		21,938		23,123
Belgium.....		1,908,013		2,256,108		2,638,207
Bermuda.....		22,741		37,596		25,512
Brazil.....		746,563		805,292		1,105,188
British India.....		27,097		93,821		60,353
British Guiana.....		97,959		71,290		57,287
British Honduras.....		33,879		41,472		80,658
British Oceania, n. e. s.....		57,341		42,066		122,223
British South Africa.....		312,069		499,417		631,996
British West Africa.....		27,322		35,854		54,478
British West Indies—						
Barbados.....						132,319
Jamaica.....						408,866
Trinidad and Tobago.....						253,989
Other British.....						81,096
Canada.....		4,308,773		6,396,971		11,204,637
Canary Islands.....		53,367		61,021		74,873
Chile.....		234,350		309,259		551,307
China.....		372,916		819,238		1,169,188
Colombia.....		15,516		34,374		48,569
Costa Rica.....		26,261		85,444		129,656
Cuba.....		1,545,270		2,704,684		2,639,475
Danish West Indies.....		42,543		10,778		21,708
Denmark.....		131,828		73,535		82,398
Dutch West Indies.....		2,296		5,303		16,721
Ecuador.....		14,118		1,314		5,759
Egypt.....		36,572		122,563		15,200
France.....		2,459,079		2,322,361		2,070,289
French Africa.....		159,681		54,044		192,041
French Guiana.....		8,369		11,621		3,623
French Oceania.....		40,907		55,785		102,576
French West Indies.....		220,995		238,250		338,233
German Oceania.....		8,882		24,331		17,199
Germany.....		2,313,612		2,343,089		2,848,931
Guatemala.....		36,314		46,039		57,714
Haiti.....		65,334		111,630		194,633
Honduras.....		35,910		48,862		68,425
Hongkong.....		51,229		36,525		70,660
Italy.....		2,027,172		1,509,349		1,463,524
Japan.....		95,336		166,493		142,911
Mexico.....		2,116,766		2,633,865		2,762,788
Netherlands.....		2,495,361		3,267,471		3,255,783
Newfoundland and Labrador.....		39,150		61,142		41,769
New Zealand.....		171,104		55,896		117,827
Nicaragua.....		14,798		15,863		18,541
Norway.....		54,395		53,610		142,293
Panama.....		836,790		1,145,497		922,800
Peru.....		822,195		535,081		649,454
Philippine Islands.....		208,434		303,819		256,932
Portugal.....		469,679		565,978		477,109
Portuguese Africa.....		227,077		127,192		233,646

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS—continued.						
Wood—Continued.						
Lumber—Continued.						
Total lumber—Contd.		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
Santo Domingo.....		65,508		114,343		114,833
Spain.....		1,136,401		917,207		1,226,243
Straits Settlements.....		55,187		105,737		129,236
Sweden.....		32,975		5,914		14,986
United Kingdom—						
England.....		6,742,050		7,231,181		7,618,425
Scotland.....		990,650		906,078		1,061,592
Ireland.....		330,860		357,858		513,295
Uruguay.....		655,094		835,602		865,199
Venezuela.....		4,997		19,555		26,040
Other countries.....		48,799		103,925		104,839
Total.....		43,557,989		50,363,035		59,526,677
Timber and logs—						
Logs—						
Belgium.....		87,254		68,764		100,568
Brazil.....				29,867		16,570
British West Indies—						
Barbados.....						
Jamaica.....		9,802		18,825		10,228
Trinidad and Tobago.....						200
Other British.....						
Canada.....		274,537		389,299		656,375
Costa Rica.....		33,914		51,005		38,493
Cuba.....		12,960		1,634		30,104
France.....		97,886		136,978		271,427
Germany.....		883,806		808,691		1,033,462
Guatemala.....		11,959		11,268		16,786
Honduras.....		12,052		17,318		16,042
Italy.....		11,586		38,148		51,585
Japan.....		12,039		15,101		20,515
Mexico.....		292,392		299,035		318,446
Netherlands.....		414,375		447,547		461,615
Panama.....		269,250		373,546		251,800
Philippine Islands.....		900		5,265		16,115
Spain.....		6,860		9,863		24,511
United Kingdom—						
England.....		277,573		491,702		735,772
Scotland.....		107,888		126,988		88,004
Ireland.....		19,411		48,745		18,800
Other countries.....		10,419		43,046		100,831
Total.....		2,846,863		3,432,635		4,278,249
Hewn timber—	<i>Cubic feet.</i>	<i>Dollars.</i>	<i>Cubic feet.</i>	<i>Dollars.</i>	<i>Cubic feet.</i>	<i>Dollars.</i>
Belgium.....	48,797	10,684	85,456	24,873	68,904	24,838
Canada.....	471,314	142,967	519,201	117,535	439,445	109,762
Cuba.....			93,198	25,500	227,071	45,037
France.....	166,275	47,681	192,288	52,096	236,621	59,788
Germany.....	214,271	82,695	198,715	66,948	281,592	130,503
Italy.....	90,594	25,174	110,270	27,465	88,186	20,611
Mexico.....	4,259	1,079	30,735	9,582		
Netherlands.....	510,358	129,700	377,137	91,488	246,694	72,728
Panama.....	397,666	67,435	529,441	87,045	188,294	35,814
United Kingdom—						
England.....	978,190	312,853	874,664	260,039	760,344	229,095
Scotland.....	42,342	11,316	68,650	20,119	30,925	9,157
Ireland.....	20,290	5,497	97,104	23,024	93,153	28,453
Other countries.....	6,172	1,930	68,337	19,478	12,568	4,337
Total.....	2,950,528	839,011	3,245,196	825,192	2,673,887	770,123

¹ Prior to 1909, including firewood and unmanufactured wood, not elsewhere specified.

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS—continued.						
Wood—Continued.						
Timber and logs—Continued.						
Sawed timber—	<i>M feet.</i>	<i>Dollars.</i>	<i>M feet.</i>	<i>Dollars.</i>	<i>M feet.</i>	<i>Dollars.</i>
Argentina.....	8, 334	218, 793	8, 924	212, 456	5, 672	146, 096
Austria-Hungary.....	730	14, 070	1, 181	25, 234	1, 430	33, 705
Azores, and Madeira Is..	486	11, 942	804	17, 059	563	13, 792
Belgium.....	5, 765	92, 475	10, 409	152, 427	12, 691	189, 993
British South Africa....	4, 901	92, 570	7, 635	169, 767	9, 623	226, 695
Canada.....	16, 147	292, 515	24, 464	511, 864	37, 534	799, 703
Egypt.....			1, 713	34, 252		
France.....	25, 356	424, 291	30, 047	543, 597	34, 300	597, 886
French Africa.....	1, 571	26, 387	2, 216	45, 393	1, 407	22, 448
Germany.....	16, 008	355, 357	16, 704	354, 834	17, 800	374, 240
Italy.....	39, 557	689, 861	63, 206	1, 124, 289	61, 576	1, 066, 779
Mexico.....	32, 362	626, 807	34, 196	674, 526	47, 545	803, 794
Netherlands.....	44, 684	942, 405	47, 600	1, 027, 841	45, 339	1, 027, 161
Panama.....	413	15, 200	853	20, 181	14	410
Portugal.....	4, 151	68, 676	3, 504	63, 985	3, 218	66, 159
Portuguese Africa.....			5, 215	96, 607	7, 448	203, 587
Spain.....	5, 267	97, 760	10, 284	167, 145	7, 735	118, 643
United Kingdom—						
England.....	118, 836	3, 238, 351	125, 725	3, 392, 371	149, 826	4, 568, 454
Scotland.....	39, 903	893, 208	35, 040	809, 094	40, 068	886, 273
Ireland.....	15, 365	258, 553	18, 343	339, 458	12, 452	266, 747
Venezuela.....	300	6, 750	718	15, 472	320	6, 404
Other countries.....	3, 173	48, 248	2, 940	54, 175	2, 986	57, 758
Total.....	383, 309	8, 414, 519	451, 721	9, 852, 027	499, 547	11, 476, 732
Total timber and logs—						
Argentina.....		218, 793		217, 908		150, 782
Austria-Hungary.....		18, 815		30, 736		40, 585
Azores, and Madeira Is..		11, 942		17, 286		13, 792
Belgium.....		190, 413		246, 064		315, 404
British South Africa....		92, 570		169, 767		234, 025
British West Indies—						
Barbados.....						
Jamaica.....						
Trinidad and Tobago..		10, 782		20, 987		10, 712
Other British.....						200
Canada.....		710, 019		1, 018, 698		1, 565, 840
Chile.....		5, 162		420		2, 475
Costa Rica.....		33, 914		54, 209		38, 493
Cuba.....		13, 060		27, 366		92, 198
Denmark.....		2, 949		2, 241		8, 715
Egypt.....				34, 252		
France.....		569, 858		732, 671		929, 101
French Africa.....		26, 979		45, 393		22, 448
Germany.....		1, 321, 858		1, 230, 473		1, 538, 205
Gibraltar.....				8, 782		1, 750
Guatemala.....		11, 959		11, 268		16, 786
Hongkong.....		980		900		27, 551
Italy.....		726, 621		1, 189, 902		1, 138, 975
Japan.....		16, 357		15, 101		20, 515
Mexico.....		920, 278		983, 143		1, 122, 240
Netherlands.....		1, 486, 480		1, 566, 876		1, 561, 504
Panama.....		351, 885		480, 772		288, 024
Peru.....		1, 380		270		2, 452
Philippine Islands.....		9, 899		5, 265		16, 115
Portugal.....		68, 676		63, 985		66, 901
Portuguese Africa.....				96, 655		203, 747
Spain.....		105, 048		177, 008		143, 584
United Kingdom—						
England.....		3, 828, 777		4, 144, 112		5, 533, 321
Scotland.....		1, 012, 412		956, 201		983, 434
Ireland.....		283, 761		411, 227		314, 000
Uruguay.....		603				34, 970
Venezuela.....		7, 500		18, 403		6, 584
Other countries.....		40, 663		131, 513		79, 676
Total.....		12, 100, 393		14, 109, 854		16, 525, 104

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS—continued.						
Wood—Continued.						
Firewood and unmanufactured wood, n. e. s.—		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
Canada.....		461,157		454,387		242,232
Other countries.....		18,839		5,823		33,638
Total.....		479,996		460,210		275,870
Total wood—						
Argentina.....		5,770,141		6,625,413		6,506,623
Australia, Commonwealth of.....		2,122,363		2,177,141		3,340,826
Austria-Hungary.....		66,888		111,895		111,432
Azores, and Madeira Is.....		49,297		39,224		36,915
Belgium.....		2,098,426		2,502,172		2,953,611
Bermuda.....		22,741		37,841		25,512
Brazil.....		758,250		835,159		1,123,770
British Guiana.....		97,959		71,200		57,287
British Honduras.....		34,056		42,076		85,103
British India.....		27,097		93,821		60,383
British Oceania, n. e. s.....		57,341		42,066		122,391
British South Africa.....		404,669		669,184		866,021
British West Africa.....		27,322		35,854		58,978
British West Indies—						
Barbados.....						132,319
Jamaica.....						419,845
Trinidad and Tobago.....						254,207
Other British.....						81,096
Canada.....		5,479,949		7,870,056		13,012,709
Canary Islands.....		53,367		61,021		74,873
Chile.....		239,512		309,679		553,782
China.....		372,942		820,738		1,169,488
Colombia.....		15,516		51,439		61,664
Costa Rica.....		60,175		139,653		168,149
Cuba.....		1,558,330		2,732,050		2,731,673
Danish West Indies.....		42,543		12,299		21,864
Denmark.....		134,777		75,776		91,113
Dutch Guiana.....		28		16,695		85
Dutch West Indies.....		2,296		5,303		16,721
Ecuador.....		14,118		1,314		5,759
Egypt.....		36,572		156,815		15,200
France.....		3,032,737		3,056,032		2,999,440
French Africa.....		186,660		99,437		214,489
French Guiana.....		8,369		11,621		3,623
French Oceania.....		40,907		55,785		102,842
French West Indies.....		220,995		239,348		338,233
German Oceania.....		8,882		24,331		17,259
Germany.....		3,641,470		3,573,912		4,389,536
Guatemala.....		48,273		57,307		74,500
Haiti.....		65,334		114,917		195,233
Honduras.....		48,068		66,510		85,497
Hongkong.....		52,209		37,425		98,211
Italy.....		2,753,793		2,699,251		2,602,499
Japan.....		111,693		181,594		163,426
Mexico.....		3,038,846		3,619,908		3,915,626
Morocco.....		8,179		35,056		35,751
Netherlands.....		3,985,741		4,834,347		4,817,287
Newfoundland and Labrador.....		49,718		84,358		41,895
New Zealand.....		171,104		55,896		117,827
Nicaragua.....		14,902		16,445		18,541
Norway.....		56,273		63,518		149,058
Panama.....		1,188,675		1,626,425		1,210,824
Peru.....		823,575		535,351		651,906
Philippine Islands.....		218,333		309,064		273,047
Portugal.....		538,355		629,963		544,010
Portuguese Africa.....		227,077		223,847		437,393
Salvador.....		8,647		21,787		12,755
Santo Domingo.....		68,673		114,573		118,332
Spain.....		1,241,449		1,094,215		1,369,827
Straits Settlements.....		55,187		105,737		129,236
Sweden.....		32,975		5,914		15,006

TABLE 17.—Quantity and value of **EXPORTS** of domestic **FARM** and **FOREST** products, 1909-1911, by articles and by countries to which consigned—Continued.

Article and country.	Year ending June 30—					
	1909		1910		1911	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
FOREST PRODUCTS—continued.						
Wood—Continued.						
Total wood—Continued.						
United Kingdom—		<i>Dollars.</i>		<i>Dollars.</i>		<i>Dollars.</i>
England.....		10,573,932		11,376,343		13,151,746
Scotland.....		2,003,062		1,862,279		2,045,026
Ireland.....		614,846		769,085		827,295
Uruguay.....		655,097		835,602		900,169
Venezuela.....		12,497		38,158		32,909
Other countries.....		32,845		63,512		67,998
Total.....		56,138,378		64,933,099		76,327,651
Wood alcohol:	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>	<i>Gallons.</i>	<i>Dollars.</i>
Belgium.....	119,355	39,615	85,589	43,000	59,514	36,650
France.....	18,575	5,150	22,745	8,600	21,595	9,322
Germany.....	568,214	161,534	654,517	258,588	974,707	410,316
Japan.....	2,350	1,277	49,829	26,930	36,490	24,213
Netherlands.....			173,314	70,800	471,678	196,900
United Kingdom—						
England.....	330,927	155,803	309,650	159,505	352,104	183,542
Scotland.....	46,016	12,585	23,991	9,500	24,529	9,965
Other countries.....	15,058	7,824	8,966	4,897	21,719	11,083
Total.....	1,100,495	383,788	1,828,601	581,820	1,962,336	881,991
Wood pulp:	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>	<i>Pounds.</i>	<i>Dollars.</i>
Argentina.....	918,986	24,332	313,822	8,329		
Belgium.....	4,751,379	105,273	3,709,245	77,649	4,435,428	95,045
Canada.....	2,522,694	36,636	3,035,839	49,290	3,040,481	47,422
France.....	4,514,771	103,880	4,443,980	97,637	5,151,291	112,732
Germany.....	1,978,685	43,519	1,027,429	23,458	624,351	13,484
Italy.....	343,938	8,234	199,260	4,374	122,295	2,532
Japan.....	405,434	8,773	766,767	16,126	1,118,187	23,675
Mexico.....	1,874,181	42,939	298,574	6,395	568,409	11,530
Netherlands.....	1,426,202	31,378	1,614,197	34,008	1,010,661	21,499
United Kingdom—						
England.....	1,502,294	34,719	1,544,170	34,071	1,442,962	31,556
Scotland.....	76,255	1,639	3,400	64	133,346	2,656
Other countries.....	335,937	7,638	340,606	8,656	419,998	9,102
Total.....	20,650,756	448,960	17,297,389	360,057	18,067,409	371,233

INDEX TO TABLE 17.

Article exported.	Page.	Article exported.	Page.
Alcohol, including cologne spirits.....	71	Game.....	57
Alcohol, wood.....	98	Ginseng.....	63
Alcoholic liquors, total.....	74	Glucose.....	63
Animals, live, other.....	42	Glucose and grape sugar, total.....	64
Animals, live, total.....	42	Glue.....	45
Apples, dried.....	60	Grain, and grain products, total.....	70
Apples, fresh.....	60	Grain products, other.....	69
Apricots, dried.....	60	Grape sugar.....	63
Bacon.....	51	Grass seed, other.....	80
Bark.....	87	Grease, grease scraps, and all soap stock.....	48
Bark, and extract of, for tanning, total.....	88	Hair.....	49
Barley.....	64	Hams and shoulders.....	52
Beans and peas.....	85	Hay.....	71
Beef, canned.....	45	Heading.....	92
Beef, other, cured.....	46	Herbs.....	79
Beef, fresh.....	47	Hides and skins, other than furs.....	49
Beef, salted or pickled.....	46	Honey.....	45
Beeswax.....	42	Hoofs.....	48
Biscuit.....	68	Hops.....	71
Boards, deals and planks.....	90	Horns.....	48
Bones, hoofs, horns, and horn tips, strips, and waste.....	48	Horses.....	41
Box shooks.....	92	Joists and scantlings.....	91
Bran, middlings, and mill feed.....	68	Lard.....	53
Brandy.....	71	Lard compounds.....	49
Bread and biscuit.....	68	Lard, neutral.....	54
Breadstuff preparations, other than bread and biscuit.....	69	Lard oil.....	80
Brewers' grains.....	68	Linseed oil.....	77
Broom corn.....	57	Linseed oil cake and oil-cake meal.....	76
Buckwheat.....	64	Liquors, alcoholic, total.....	74
Butter.....	42	Logs.....	95
Butter, imitation.....	47	Lumber, other.....	93
Canned meat, other.....	50	Lumber, total.....	94
Cattle.....	41	Malt.....	68
Charcoal.....	88	Malt liquors, bottled.....	72
Cheese.....	43	Malt liquors, total.....	73
Chocolate.....	58	Malt liquors, unbottled.....	73
Cider.....	57	Malt sprouts.....	68
Clover seed.....	80	Meat, canned, other.....	50
Cocoa, ground or prepared, and chocolate.....	58	Middlings.....	68
Coffee, green or raw.....	58	Milk.....	43
Coffee, roasted or prepared.....	58	Mill feed.....	68
Cologne spirits.....	71	Molasses.....	82
Corn.....	64	Moss.....	88
Corn meal.....	66	Mules.....	41
Corn oil.....	76	Mutton.....	50
Corn oil cake.....	75	Naval stores, total.....	89
Cotton, sea-Island.....	58	Nursery stock.....	74
Cotton, total.....	59	Nuts, other.....	75
Cotton, upland.....	58	Nuts, total.....	75
Cotton seed.....	80	Oatmeal.....	66
Cottonseed oil.....	77	Oats.....	65
Cottonseed oil cake and oil-cake meal.....	75	Oil, corn.....	76
Dairy products, total.....	44	Oil, cotton-seed.....	77
Deals.....	90	Oil, lard.....	54
Distilled spirits, other.....	72	Oil, linseed.....	77
Distilled spirits, total.....	72	Oil, oleo.....	47
Distillers' and brewers' grains and malt sprouts.....	68	Oil, peppermint.....	78
Egg yolks.....	44	Oil cake, corn.....	75
Eggs.....	44	Oil cake and oil-cake meal, cotton seed.....	75
Extract, bark.....	87	Oil cake and oil-cake meal, flaxseed or linseed.....	76
Feathers.....	44	Oil cake and oil-cake meal, total.....	76
Firewood.....	97	Oils, animal, not elsewhere specified.....	51
Flavoring extracts and fruit juices.....	59	Oils, vegetable, fixed or expressed, other.....	78
Flaxseed or linseed.....	80	Oils, vegetable, total.....	78
Flaxseed, or linseed, oil cake and oil-cake meal.....	76	Oils, vegetable, volatile or essential, other.....	78
Flowers, cut.....	59	Oleo oil.....	47
Fowls.....	41	Oleomargarine (imitation butter).....	47
Fruits, fresh or dried, other.....	61	Onions.....	85
Fruits, preserved, canned.....	62	Oranges.....	60
Fruits, preserved, other than canned.....	62	Packing-house products, other.....	55
Fruits, total.....	62	Packing-house products, total.....	56
		Peaches, dried.....	61
		Peanuts.....	75
		Pears, fresh.....	61

Index to Table 17—Continued.

Article exported.	Page.	Article exported.	Page.
Pease.....	85	Spirits, distilled, other.....	72
Peppermint oil.....	78	Spirits, distilled, total.....	72
Planks.....	90	Starch.....	81
Pork, canned.....	51	Staves.....	93
Pork, fresh.....	53	Straw.....	81
Pork, salted or pickled.....	52	Sugar, raw.....	82
Potatoes.....	85	Sugar, refined.....	82
Poultry and game.....	57	Sugar, molasses, and sirup, total.....	82
Prunes.....	61	Swine.....	42
Raisins.....	61	Tallow.....	47
Rice.....	79	Tar.....	88
Rice bran, meal, and polish.....	79	Tar, turpentine, and pitch, total.....	89
Rice hulls.....	79	Timber, hewn.....	95
Roots, herbs, and barks, n. e. s.....	79	Timber, sawed.....	96
Rosin.....	88	Timber and logs, total.....	96
Rum.....	71	Timothy seed.....	80
Rye.....	65	Tobacco, leaf.....	83
Rye flour.....	66	Tobacco, stems and trimmings.....	84
Sausage and sausage meats.....	55	Tobacco, total.....	84
Sausage casings.....	55	Turpentine and pitch.....	89
Scantling.....	91	Turpentine, spirits of.....	89
Seeds, clover.....	80	Vegetables, canned.....	80
Seeds, cotton.....	80	Vegetables, prepared or preserved, other than canned.....	85
Seeds, flaxseed or linseed.....	80	Vegetables, total.....	86
Seeds, grass, other.....	81	Vinegar.....	87
Seeds, other.....	80	Wheat.....	65
Seeds, timothy.....	81	Wheat flour.....	66
Seeds, total.....	41	Whisky, Bourbon.....	72
Sheep.....	91	Whisky, rye.....	72
Shingles.....	92	Wines, bottled.....	73
Shooks, box.....	92	Wines, total.....	74
Shooks, other than box.....	52	Wines, unbottled.....	73
Shoulders.....	45	Wood alcohol.....	98
Silk waste.....	82	Wood pulp.....	98
Sirup.....	49	Wood, total.....	97
Skins.....	48	Wool, raw.....	45
Soap stock.....	81	Yeast.....	87
Spices.....			

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The National Association of Box Manufacturers

In Cooperation with

UNITED STATES DEPARTMENT OF
AGRICULTURE

FOREST SERVICE, H. S. GRAVES, FORESTER

Office of Industrial Investigations
O. T. SWAN, In Charge

AMOUNTS AND KINDS OF WOOD USED
IN THE MANUFACTURE OF BOXES
IN THE UNITED STATES

BY
J. C. NELLIS
U. S. Forest Service



AMOUNTS AND KINDS OF LUMBER USED IN THE MANUFACTURE OF BOXES IN THE UNITED STATES.

BY

J. C. NELLIS, U. S. FOREST SERVICE.

Box makers in the United States use 4,547,973,180 feet of lumber annually, of which softwoods constitute 3,138,278,019 feet, or 69 per cent, and hardwoods 1,409,695,161 feet, or 31 per cent of the total. Practically all of the wood used for boxes is the product of the sawmill and therefore forms a part of the annual lumber cut. Based on the production in 1912, the last year for which figures are available, 11.6 per cent of all lumber produced in the United States is converted into boxes. In fact, the manufacture of packing boxes and shooks, crates, crating, fruit and vegetable packages and baskets, is the second largest wood-consuming industry of the United States. The manufacture of lumber for construction and building purposes, planing mill products, sash, doors, blinds, and general mill work, is, of course, the leading wood-consuming industry, taking over two-thirds of the annual lumber cut.

This paper presents for the first time statistics showing how much of each kind of wood is used by the box industry and the amount consumed by box makers in each of the important regions and States. These statistics are a part of those secured by the Forest Service through its studies of all the wood-using industries.* Investigations were conducted separately in each State. Reports were secured from practically every wood-using plant showing the amount of wood consumed annually, and the uses to which each kind of wood is put, and the accompanying tables are based upon reports secured from box factories during the respective State studies. This information was first used in compiling State reports which have been published for thirty States. This article summarizes the statistical information regarding the box industry. The collection and compilation of the figures, which was carried out State by State, extended over a period of four years, but as one full year was made the basis of statistics in each case the figures shown here give a very clear idea of the quantity of each

* Readers are referred to the various State wood-using bulletins for data as to the industry in each State. Further, this paper is but a preliminary report of the Forest Service investigations of the box industry; an extensive study has recently been undertaken which will consider specifications for box lumber, methods of manufacturing boxes and shooks with particular attention to the reduction and use of waste, costs of manufacture, marketing, and finally the use of boxes by consumers with special reference to the correlation of consumers' specifications as far as possible.

kind of lumber used for boxes in the whole country. The total amount of wood used annually in the United States for the manufacture of boxes and the quantity used in each State are shown in Table 1.

TABLE 1—WOOD USED IN THE U. S. FOR BOXES AND CRATES.

State.	Quantity used annually. Feet B. M.
Virginia	433,028,997
New York	390,057,650
Illinois	389,199,000
Massachusetts	353,405,350
California	309,406,285
Pennsylvania	276,587,094
Michigan	232,111,486
New Hampshire	200,209,596
Ohio	153,417,273
Maryland	144,309,000
Wisconsin	119,267,000
Kentucky	112,424,500
Missouri	111,765,699
Arkansas	110,822,000
Maine	108,889,400
New Jersey	102,605,205
Washington	96,448,500
Indiana	85,267,160
Oregon	78,939,000
Tennessee	77,979,510
Minnesota	77,854,600
North Carolina	76,525,000
Louisiana	56,004,500
Florida	53,469,000
Vermont	48,871,060
Mississippi	39,295,093
Texas	35,762,125
Iowa	31,340,476
Kansas	28,544,500
Arizona and New Mexico	28,035,000
Delaware	27,624,173
Connecticut	24,411,090
Georgia	24,373,409
West Virginia	23,837,000
Alabama	22,442,000
Rhode Island	15,951,200
South Carolina	13,960,000
Idaho	10,245,000
Nebraska	6,861,000
Montana	5,249,927
Colorado	4,734,000
Oklahoma	4,389,000
Nevada and Utah	1,517,000
District of Columbia	518,655
North and South Dakota	18,667
Total	4,547,973,180

Principal Producing Regions.

The manufacture of boxes in the United States is conducted on a large scale in certain regions determined by the supply of raw material and the markets for the product. The manufacturing industries turning out products usually shipped in boxes, and the intensive production of fruits and vegetables for wide markets are the consuming channels calling for large box supplies. Among the leading box consumers are manufacturers of oil, packing-house products, canned goods, groceries and tobacco, clothing and dry goods, the manufacturers of hardware, tinware and machines, growers of fruit, berries and vegetables. Crates, which are classed in this report with boxes, are used in large quantities by shippers of furniture, hardware, machinery and stone. There are innumerable special demands for boxes and crates, but on the whole it is manufacturing and intensive fruit raising and market gardening which create the demand for boxes, and a careful analysis of the centers of these activities, together with a consideration of the sources of timber supply, will explain the widely varying relative importance of the industries in the several States and regions.

Nearly three-fourths of all the boxes, shooks, crates, crating, etc., are manufactured in the region east of the Mississippi River and north of Tennessee and North Carolina, which, owing to the extent of its industries, offers the best market for boxes, and also embraces or is contiguous to the sources of the woods most used in box making. New England and New York produce and manufacture into boxes a great deal of white pine, hemlock, spruce and balsam fir, though they also secure a portion of their box material from Canada. Virginia and Maryland produce yellow pine—loblolly, shortleaf and scrub—and use nearly half a billion a year for boxes and shooks, though much of this comes from North Carolina. Wisconsin and Michigan manufacture white pine into boxes, also join with Minnesota in furnishing the wood to box factories in Illinois. The latter State draws also on the southern supply of red gum, cottonwood and yellow poplar, as do Indiana, Ohio, Pennsylvania and New York.

The fourteen States lying east of Ohio, Kentucky and Tennessee and north of South Carolina produce 50 per cent of all the boxes and shooks manufactured annually. Wisconsin, Michigan, Illinois, Indiana and Ohio together contribute 20 per cent of the total production, the Pacific Coast States—California, Oregon and Washington—10 per cent; the red gum States—Missouri, Arkansas, Kentucky and Tennessee—9 per cent, while all the rest of the States together produce only 11 per cent.

Boxes manufactured in the States east of the Mississippi River are largely used in the same region, while Pacific Coast box manufacturers not only supply salmon packers and fruit rais-

ers in their own region, but have been able to ship the best grades of shooks to the meat packing centers of Chicago and Omaha. With the opening of the Panama Canal, Pacific Coast shooks are likely to enter eastern markets.

Woods Used.

In general the requirements for box material are that it shall be cheap, plentiful, light in weight, and capable of holding nails without splitting. Other qualities are demanded for particular kinds of boxes. Those which are meant to hold certain food stuffs are made from woods that are odorless, tasteless and stainless. Further, some kinds of boxes must be sufficiently light in color to show stenciling and printing. Some strength is required in all boxes, but a great degree of strength is demanded only for export boxes or for boxes in which heavy merchandise is shipped. For this reason, box makers do not demand one kind of wood greatly in excess of other kinds. The species most used differs in different regions, usually according to the local supply.

The quantity of each kind of wood used annually in the United States for the manufacture of boxes is shown in Table 2. This table has been compiled, not by botanical species, but by groups of closely related species which are often classed together in the lumber trade.

TABLE 2—WOOD USED IN THE U. S. FOR BOXES
AND CRATES.

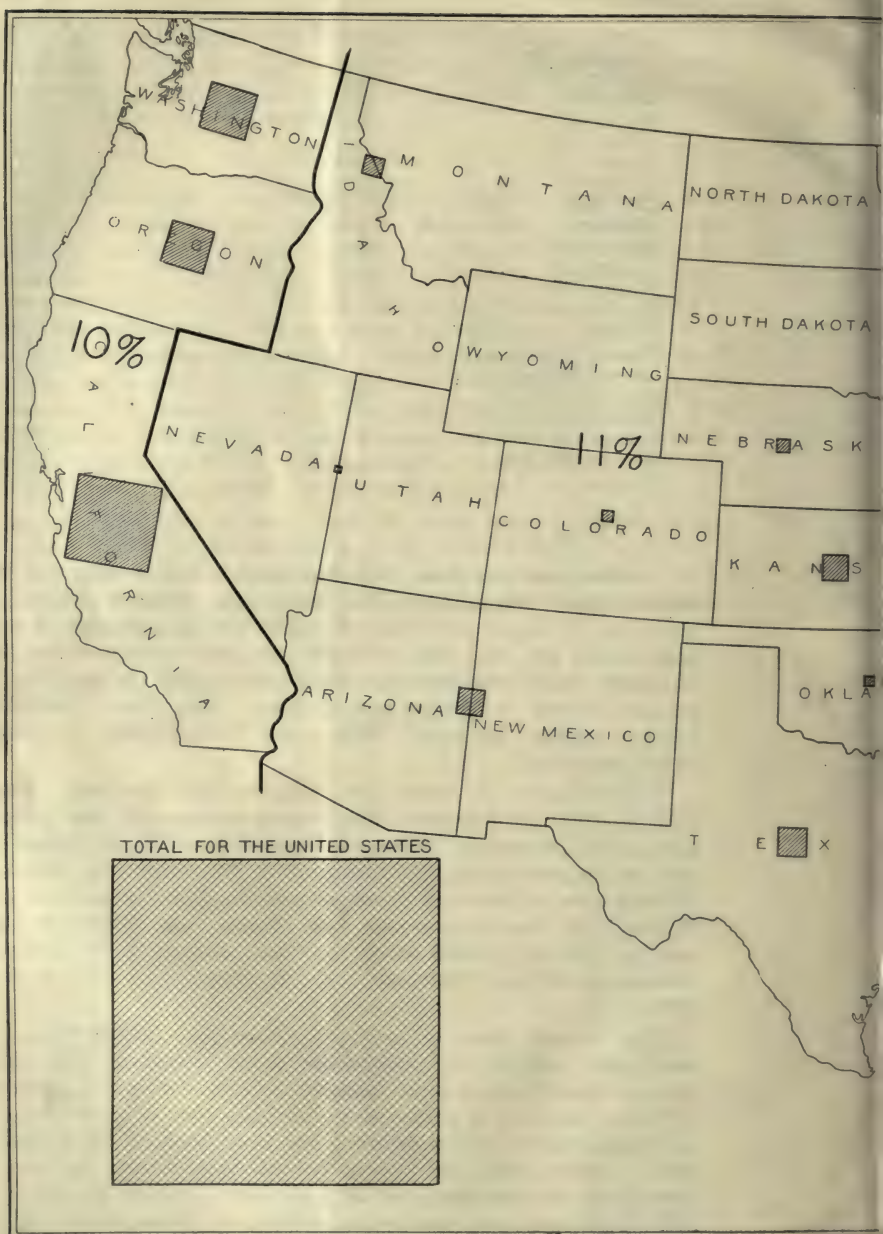
Kind of Wood.	Quantity used
	annually. Feet B. M.
White Pine	1,131,969,940
Yellow Pine	1,042,936,123
Red Gum	401,735,390
Spruce	335,935,643
Western Yellow Pine	288,691,927
Cottonwood	210,819,509
Hemlock	203,526,091
Yellow Poplar	165,116,737
Maple	96,831,648
Birch	90,787,900
Basswood	86,979,611
Beech	77,899,280
Tupelo	74,982,910
Elm	63,726,458
Oak	56,362,111
Balsam Fir	40,173,700
Cypress	38,962,895
Chestnut	36,216,700
Sugar Pine	24,686,000
Sycamore	16,451,693
Ash	10,507,308
Willow	10,004,600

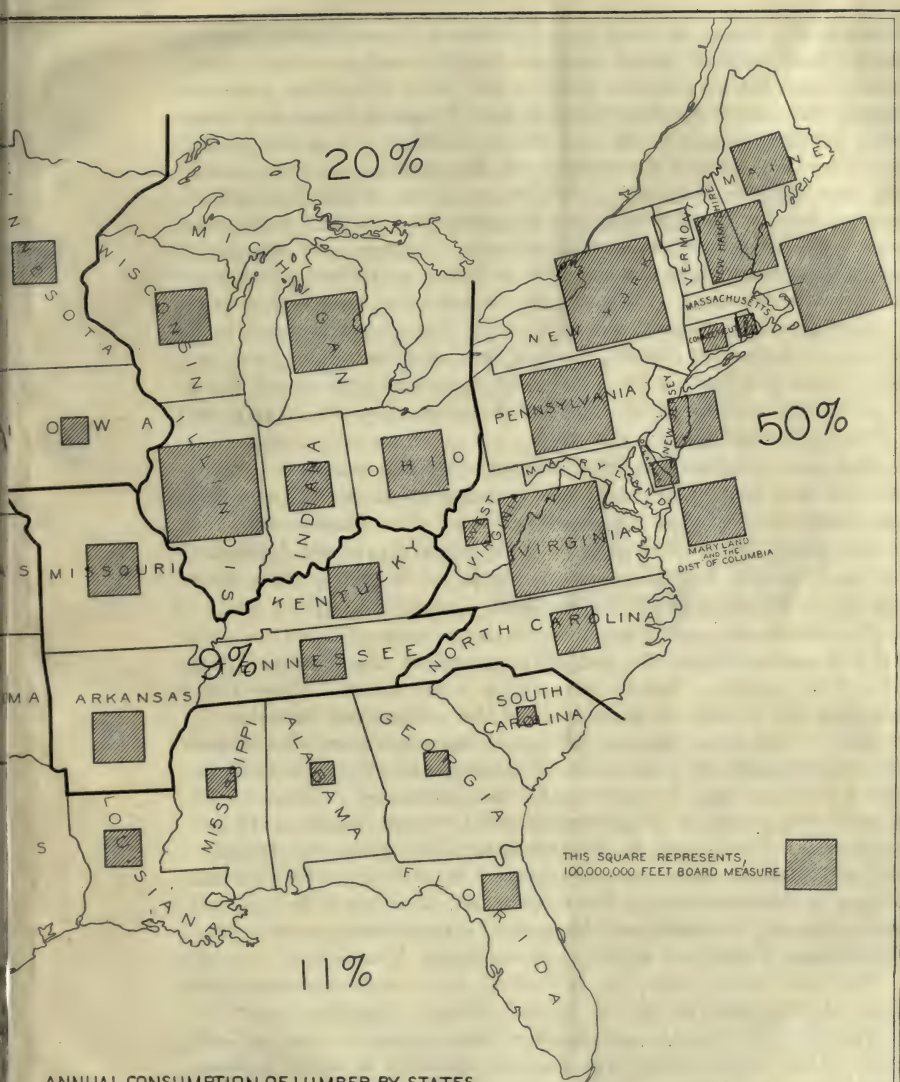
Larch	7,470,300
Douglas Fir	7,349,840
Noble Fir	6,653,500
Magnolia	5,449,000
Buckeye	3,174,028
White Fir	3,142,080
Cedar	2,512,150
Redwood	2,439,500
Red Fir	1,328,330
Hickory	767,920
Butternut	578,000
Cucumber	524,000
Alpine Fir	500,000
Hackberry	315,000
Cherry	170,500
Black Walnut	163,250
Silver Bell Tree	91,308
Applewood	13,800
Mahogany	13,000
Ailanthus	5,000
Mountain Ash	5,000
Yucca	3,500
Total	4,547,973,180

White pine has long been the preferred box material, and still is, where obtainable. The white pine listed in Table 2 is made up of 96 per cent eastern white pine, 2 per cent Norway pine, and 1 per cent each of Jack pine and western white pine. In order of the quantity consumed, white pine is used to the greatest extent in Massachusetts, New York, New Hampshire, Illinois, Maine, Michigan, Minnesota, Pennsylvania, Wisconsin and New Jersey.

The sources of white pine supplies are the Lake States, Canada and New England. The largest amounts of Norway pine are used in Minnesota, Michigan, Wisconsin and New Hampshire, and the largest amounts of Jack pine in Wisconsin and Michigan. Norway pine is lumbered principally in the Lake States and New England and Jack pine in the Lake States only. Western white pine is used to a small extent by box factories in Washington, Oregon, Idaho and Montana, and the supply comes from these States.

The several kinds of southern yellow pine furnish almost as much box material as does white pine. However, the single species, eastern white pine, furnishes over a billion feet annually, while no one kind of yellow pine furnishes over a half-billion. It is not possible to tell accurately just how much of each kind of yellow pine is used for boxes, but an approximate estimate is loblolly 46 per cent, shoftleaf 35½ per cent, longleaf 8½ per cent, scrub 6 per cent, and smaller proportions of Cuban, pitch and the minor yellow pines. Over two-thirds of all the yellow pine manu-





ANNUAL CONSUMPTION OF LUMBER BY STATES
IN THE MANUFACTURE OF BOXES CRATES
FRUIT AND VEGETABLE PACKAGES

PREPARED BY THE OFFICE OF INDUSTRIAL INVESTIGATIONS
U.S. FOREST SERVICE

factured into boxes is used in the Atlantic Coast States, and is North Carolina pine, which includes loblolly and shortleaf. The States using the largest amounts of all kinds of yellow pine, in order of the quantities they consume, are Virginia, Maryland, New York, Pennsylvania, Florida and North Carolina. Virginia, Maryland, New York and Pennsylvania use the largest amount of loblolly pine, while Virginia, Pennsylvania, New York and North Carolina use the most shortleaf. Longleaf pine is used in largest amounts in Florida, Illinois and Indiana. Virginia and Maryland lead in the use of scrub pine, and New Jersey and Pennsylvania in the use of pitch pine. Most of the Cuban pine reported is used in Florida. Box makers secure loblolly pine largely from saw-mills in Virginia and North Carolina and shortleaf pine from the same States and also from Arkansas. Longleaf pine comes from the Gulf States while scrub, pitch and Cuban pine are largely cut in the States where they are used.

Red gum is a single species, although the box trade recognizes both sap and red gum, the former coming from the sapwood of large trees or trees that are nearly all sap. The States using the greatest quantities of red gum for box manufacture are Missouri, Illinois, Arkansas, Kentucky and Virginia, while the supply comes from the lower Mississippi Valley States.

Two kinds of spruce are used in large amounts for boxes,—in the Eastern States the red spruce, and in the Pacific Coast States Sitka spruce. Red spruce, which is lumbered in New England, New York, and southward along the mountains, furnishes 57 per cent of the total amount of spruce manufactured into boxes, being used chiefly in New York, Massachusetts, New Hampshire, Maine, New Jersey, Vermont, and Pennsylvania. Sitka spruce cut near the coast in Washington and Oregon furnishes 42 per cent, and is most used in Washington, California and Oregon. Small amounts of black spruce are used in Michigan, Illinois and Wisconsin, white spruce in Minnesota and Wisconsin, and Engelmann spruce in Colorado and Montana; these minor spruces grow in the States mentioned with the exception of Illinois.

Western yellow pine, an individual species, is an important source of box material in the West. About three-fourths of all the western yellow pine manufactured into boxes is used in California. Other States using large amounts are New Mexico, Arizona, Washington and Idaho. This species is lumbered in the Rocky Mountain States and westward. The largest quantities are cut in the three Pacific Coast States and Idaho.

The term cottonwood includes a half-dozen species, of which the common cottonwood of the lower Mississippi Valley furnishes 85 per cent of the total amount used for boxes. The largest quantities are employed in Illinois, Tennessee, Missouri, Mississippi,

Kentucky, Louisiana, Ohio, New York and Arkansas. The western species, black cottonwood, which grows in the Pacific Coast States, furnishes 7 per cent of the total, most of which was used in Washington, and a much smaller amount in California. Balm of Gilead, lumbered in the Northeast and in the Lake States, furnishes 5 per cent, and is used in Michigan, New York and Illinois. Aspen, which is commonly known in the north as popple, formed 3 per cent and was used in largest quantities in Vermont, Maine, Wisconsin, and Michigan. This species is cut mostly in the Northeast and Lake States. Very small amounts of both large toothed aspen and Lombardy poplar were also used in Michigan.

Both eastern and western hemlock go into boxes. The eastern species furnishes 84 per cent of the total, and the western species 16 per cent. Eastern hemlock is supplied by mills in Wisconsin and Michigan and in mountain regions of the eastern States while the western species is cut almost exclusively in Washington and Oregon. Eastern hemlock is used for boxes in largest quantities in Illinois, Michigan, Massachusetts, New Hampshire and Wisconsin, and western hemlock in Washington, Oregon and in California.

Yellow poplar is a single species which is often called white-wood or tulip tree. It is put to greatest use in the manufacture of boxes in Ohio, Kentucky, Pennsylvania, Tennessee, Virginia and Illinois. The supply of poplar box lumber comes from West Virginia, Pennsylvania, Kentucky, Virginia, North Carolina, and adjacent States.

The different kinds of maple are used in largest quantities in Michigan, Illinois, Pennsylvania, Ohio, and New York. It is difficult to ascertain the exact amount of each kind of maple used for boxes, but it is estimated that 63 per cent is sugar maple, 35 per cent silver maple, and 2 per cent red maple. Sugar maple is used most extensively in Michigan, Illinois, and Pennsylvania; silver maple in Illinois, Ohio and Michigan; and red maple in Illinois. Michigan, Wisconsin, Pennsylvania, and New York are the largest producers of sugar maple lumber; silver maple is largely cut by mills in the northern States, and red maple by mills in the central and southern States.

The several kinds of birch are most used in Illinois, Wisconsin, Michigan and Pennsylvania. As with the maples, it is difficult to ascertain the proportion of the different species, but it is estimated that 84½ per cent is yellow birch, 13 per cent sweet birch, and 2½ per cent paper birch. The largest amounts of yellow birch are used in Illinois, Wisconsin and Michigan; of sweet birch in Pennsylvania and West Virginia, while most of the paper birch is used in Maine. Yellow birch is lumbered mostly in the Lake States and Northeast; sweet birch in Pennsylvania and West Virginia, and paper birch in northern New England.

The basswood employed in the wood-using industries is cut from three botanical species; one common in the North and two in the South. The lumber is supplied by sawmills in the Lake States, central States and the Northeast. The most important basswood consuming States are Michigan, Wisconsin, Illinois, New York and Minnesota.

There is but one kind of beech native to this country, and it is cut and used most extensively in the northern States. The box factories of Michigan, Pennsylvania, New York, Ohio, and Indiana use beech in largest quantities. The same five States produce two-thirds of all the beech lumber cut in this country.

Tupelo is the common name for lumber cut from cotton gum and black gum trees. The States using the greatest quantity of tupelo in box manufacture are Virginia, Maryland, North Carolina, Pennsylvania, and Louisiana. It is estimated that 51 per cent is cotton gum and 49 per cent black gum. Based on this division, cotton gum is put to greatest use in Louisiana, Virginia, and Illinois, and black gum in Virginia, Maryland and North Carolina. The largest quantities of cotton gum box lumber come from Louisiana, while black gum box lumber is largely produced in Virginia and North Carolina.

It is estimated that 85½ per cent of all the elm consumed by the box industry is white elm, which is used in largest quantities in Michigan, New York, Illinois, Ohio, and Indiana. Twelve per cent is estimated to be red or slippery elm, which is used mostly in Illinois and Indiana. These species are cut mostly in the States mentioned with the exception of Illinois and the addition of Wisconsin and Missouri. Small amounts of cork elm are used in several northern States, and a small amount of wing elm in Texas.

One of the minor uses of oak is in the manufacture of boxes, crates, and baskets. In the use of oak, Arkansas leads, followed by Pennsylvania, Indiana and Ohio. It is estimated that 50 per cent of the total is red oak, used mostly in Pennsylvania, Ohio, West Virginia and New York, 20 per cent yellow oak, practically all used in Arkansas, 17½ per cent white oak, the largest amounts used in Indiana and Ohio, and 7 per cent Texan oak, reported chiefly from Arkansas. Oak lumber is produced in every hardwood State and that used by box makers was probably cut in the State where used or adjacent States. Small amounts of bur, Garry, post, overcup, chinquapin, pin and willow oak are also used in different States.

Balsam fir is a single species which grows in the northeastern and Lake States, although it is sometimes confused with white fir of the West. It is put to its greatest use in box manufacture in Maine, Massachusetts, New Hampshire and Vermont. The lumber is produced mostly by mills in northern New England and the Lake States.

Cypress is not an important box material because it is more valuable for other purposes and is suited for only certain kinds of boxes. The largest quantities are used in Missouri, New York and Louisiana. Nearly two-thirds of all the cypress lumber cut comes from Louisiana.

Chestnut is not used to a great extent for boxes, although the lower grades of sound wormy sometimes go into the cheaper kinds of boxes and crates. The States using the largest amounts for boxes are Pennsylvania, Ohio, New York, and Virginia, while the States furnishing this kind of box lumber are West Virginia, Pennsylvania, Virginia, and Kentucky.

The wood of sugar pine is much like that of white pine, and is therefore very suitable for boxes, but the greater part of the lumber produced by sawmills is of too high grade to allow its use by box factories. Over 80 per cent of the sugar pine used for boxes is consumed in California, and practically all of the balance in Oregon. These States alone supply this wood—the greater part being cut in California.

Sycamore, although rather difficult to work, is used for certain kinds of boxes. The largest amounts are consumed in Kentucky, Virginia, Missouri, and Illinois. The lumber is produced in the central hardwood States.

Ash is not an important box material, but like other hardwoods is used to some extent. The largest quantities are used in Michigan and Illinois. It is estimated that 47 per cent of the total is white ash, the largest quantities being used in Illinois and Michigan; 28 per cent black ash, a large part of which is used in Michigan; and 23 per cent green ash, used mostly in Texas, Georgia, and Arkansas. A small amount of red ash was also used in Georgia. White and black ash are cut mostly in the northern States and green ash in the South.

There are several kinds of willow, but all are listed together in statistics. The most important kind is black willow, which is cut and used largely in the States of Louisiana and Mississippi as a substitute for cottonwood, which it resembles both in appearance and qualities.

The term larch here includes the eastern tamarack and western larch. Ninety-five per cent of the total is tamarack, the largest quantities of which were used in Michigan and Wisconsin. The greater part of the western larch was used in Montana. Tamarack is lumbered mostly in the Lake States and larch in the Northwest.

A very minor use of Douglas fir is in the manufacture of boxes in the States of California, Colorado, Oregon and Washington. Douglas fir lumber is produced in many of the western States—

Washington and Oregon furnish nearly two-thirds of the total quantity.

Noble fir is one of the minor western species, and more of it is used by the box industry than by any other. The entire amount shown in Table 2 was reported as used by box makers in Oregon. The lumber is cut by sawmills in Washington and Oregon.

Magnolia is a wood somewhat resembling yellow poplar and is cut in the southern States; it is used in greatest quantities for boxes in Florida and Louisiana.

Buckeye is one of the minor species of the central hardwood region and Tennessee box factories use the largest quantities.

White fir is a minor western species, well suited to the manufacture of boxes. The greater part of the amount shown in Table 2 was used in California and a very small part in Oregon. The largest quantities of white fir lumber are cut by sawmills in the Pacific Coast States and Idaho.

None of the several kinds of cedar is important as box material. The eastern red and northern white cedar comprise the greater portion of the total, while small amounts of southern white, western red and incense cedar are also reported.

A minor use of redwood is in the manufacture of boxes, and the wood so used is practically all cut and consumed in California.

Red fir is used to some extent in California for the manufacture of boxes. The species is lumbered only in California and Oregon.

The other species listed in Table 2 are used in small quantities only, and fall into two classes—those too valuable for box material, and a few comparatively scarce species which are fit for but little but cheap boxes and crates. Some hickory is employed to make very strong, tough crates for shipping machinery and heavy merchandise. The wood of the cucumber tree resembles that of yellow poplar both in appearance and properties and is put to practically the same uses by box manufacturers. Alpine fir is a Rocky Mountain species resembling balsam fir in appearance, properties and uses. Hackberry and silver bell tree are southern hardwoods little used for any purpose. Butternut, cherry, walnut, applewood, and mahogany are too costly to be used for shipping boxes but are made into expensive boxes for jewelry, silverware, and other expensive merchandise. Woods such as ailanthus and mountain ash serve only for cheap boxes or crating. Yucca is a desert palm from Arizona and California and was used in Missouri for bottle packing.

Publications of the U. S. Department of Agriculture

Forest Service

Of Interest to Box Manufacturers

- Departmental Bulletin 24** - Cottonwood in the Mississippi Valley.
- Farmer's Bulletin 582** - Uses for Chestnut Timber Killed by Bark Disease.
- Departmental Bulletin 13** - White Pine under Forest Management.
- Departmental Bulletin 86** - Tests of Wooden Barrels.
- Forest Service Bulletin 13** - Timber pines of southern United States, with discussion of structure of their wood. Paper, 50c.
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State Wood-Using Industry Reports

Prepared by The Office of Industrial Investigations

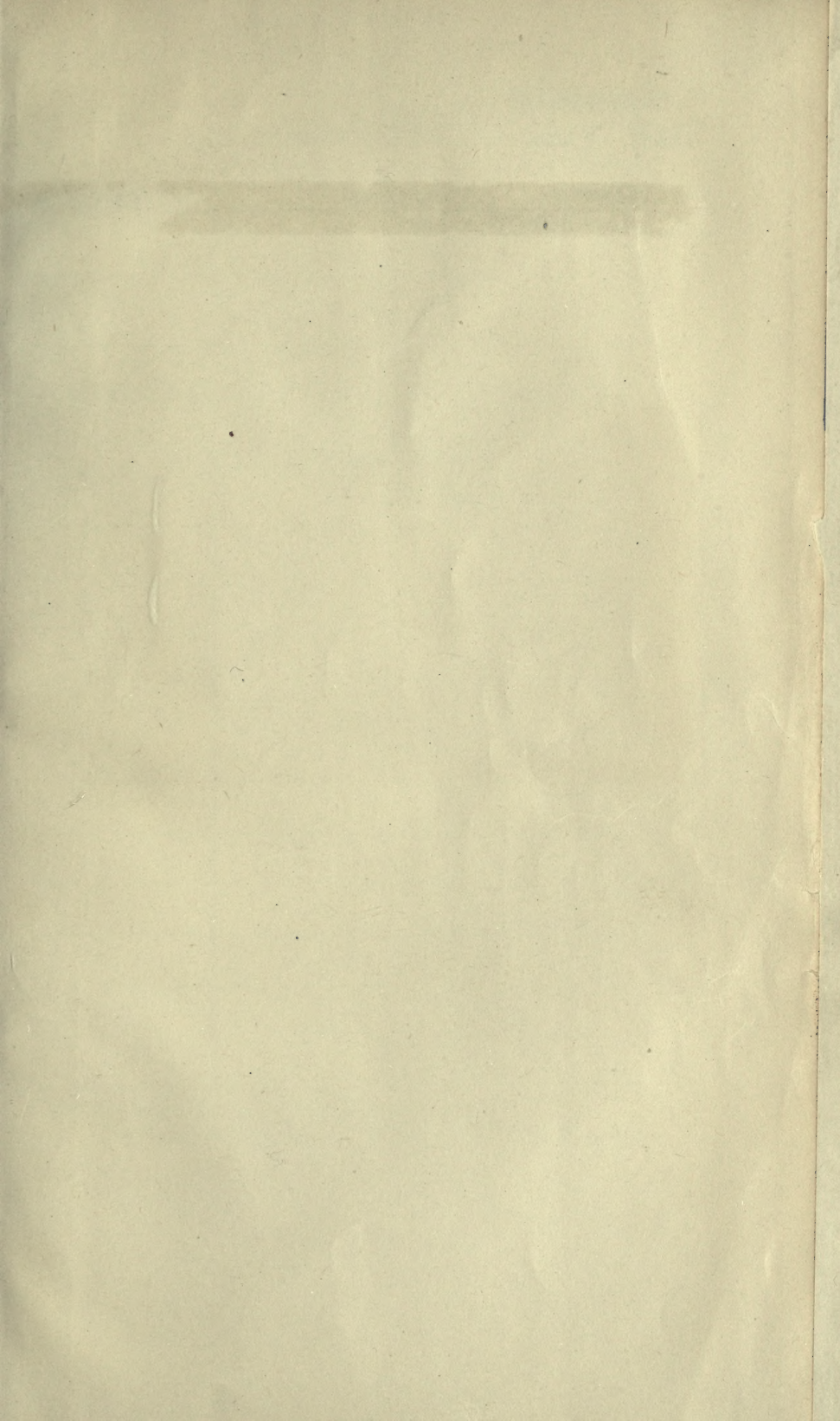
The Forest Service has completed statistical studies of wood-using industries including box manufacture in a number of States. The reports, primarily of local interest, have been printed by some Department of the Government of the State interested, or by an association or periodical devoted to the interest of lumbering and conservation. Bulletins at present available are indicated below and may be secured from the cooperator whose address is given. In ordering those for which there is no charge, postage should accompany the application.

STATE	COOPERATOR	ADDRESS	PRICE
Ark.	Supt. of Doc. of Gov. Printing Office	Washington, D. C.	\$.05
Ala.	The Lumber Trade Journal	New Orleans, La.	.25
Cal.	G. M. Homans, State Forester	Sacramento, Cal.	
Conn.	W. O. Filley, State Forester	New Haven, Conn.	
Fla.	W. A. McRae, Com'r of Agric.	Tallahassee, Fla.	
Ill.	J. C. Blair, Univ. of Ill.	Urbana, Ill.	
~~Iowa~~	~~Iowa State College~~	~~Ames, Iowa~~	
~~Ky.~~	~~J. E. Barton, State Forester~~	~~Frankfort, Ky.~~	
~~La.~~	~~The Lumber Trade Journal~~	~~New Orleans, La.~~	~~.25~~
Me.	State Forest Commissioner	Augusta, Me.	
Mich.	Public Domain Commission	Lansing, Mich.	
Minn.	W. T. Cox, State Forester	St. Paul, Minn.	
Miss.	The Lumber Trade Journal	New Orleans, La.	.25
Mo.	St. Louis Lumberman	St. Louis, Mo.	.25
N. H.	E. A. Hirst, State Forester	Concord, N. H.	
N. Y.	N. Y. State College of Forestry	Syracuse N. Y.	
N. C.	J. S. Holmes, State Forester	Chapel Hill, N. C.	
Ohio	Edmund Secrest, State Forester	Wooster, Ohio	
Pa.	R. S. Conklin, Com'r of Forestry	Harrisburg, Pa.	
S. C.	E. J. Watson, Com'r of Agric.	Columbia, S. C.	
Tenn.	Southern Lumberman	Nashville, Tenn.	.25
Texas	The Lumber Trade Journal	New Orleans, La.	.25
Vt.	A. F. Hawes, State Forester	Burlington, Vt.	
Va.	G. W. Koiner, Com'r of Agric.	Richmond, Va.	
Wis.	E. M. Griffith, State Forester	Madison, Wis.	

Work on studies in the States listed below is now under way. Application for the bulletins to be sent when ready for distribution can be made as follows :

W. Va.	H. E. Williams, Com'r of Agric.	Charleston, W. Va.
N. J.	Alfred Gaskill, State Forester	Trenton, N. J.
Ind.	The Hardwood Record	Chicago, Ill.
Ga.	The Lumber Trade Journal	New Orleans, La.

The editions of the wood-using reports in the following States are entirely exhausted: Idaho, Maryland, Massachusetts, Montana, Oregon, and Washington.



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